

California Migrant Education Program

Comprehensive Needs Assessment



Initial Report of Findings
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Executive Summary

Title I, Part C, of the No Child Left Behind (NCLB) Act, program regulations, and policy guidance issued by the Office of Migrant Education (OME) at the U.S. Department of Education (USDE) require state educational agencies to conduct a Comprehensive Needs Assessment (CNA) of the Migrant Education Program (MEP) in California.

The purpose of the CNA is to identify the contemporary, unique educational needs of migratory children that must be met for those children to participate effectively in school. The information obtained as a result of the CNA is to be used in developing future state MEP plans to deliver services. Optimally, the data collected as part of the CNA will help state, regional, and local MEP agencies to establish programmatic and funding priorities.

Accordingly, in the summer of 2005, the Migrant, Indian, and International Education Office of the California Department of Education (CDE) in collaboration with WestEd launched the CNA process by establishing a Management and Data Team (Management Team) to oversee the implementation of the project.

This team based its initial activities on the guidance provided by the OME in a guidebook titled *Comprehensive Needs Assessment: Focusing Statewide Programs on Student Needs*.¹ Development of the guidebook was based on a pilot study of the CNA conducted in four states.

The guidebook directs states to separate the needs assessment into three levels: (1) needs of migrant students and families; (2) needs of services providers, such as teachers, administrators, and migrant education staff; and (3) needs of the educational entities that establish base programs and policies, allocate resources, and adopt solution procedures for special needs students. This report reflects work done on level 1, investigating the needs of migrant students and families.

The guidebook also suggests that the first level of the CNA be organized according to three clusters of activities:

1. Explore what is.
2. Gather and analyze data.
3. Make decisions.

Although the CNA process as implemented in California followed most of the steps recommended in the national model, some modifications were necessary. This summary includes explanations of several limitations experienced in the California setting.

The CNA process is designed to include the contributions of the MEP staff and community. Accordingly, the Management Team, in conjunction with the state MEP

¹*Comprehensive Needs Assessment: Focusing Statewide Programs on Student Needs*.
<http://www.cesdp.nmhu.edu/migrant/docs/product.doc> (accessed February 13, 2008).

director, convened an advisory group representing staff members from programs and from local, county, and state educational agencies and migrant parents to provide guidance to the CNA.

Explore What Is

Guidance from the USDE calls for the CNA to be conducted according to the four major goal areas of the MEP:

1. Reading achievement
2. Mathematics achievement
3. School readiness
4. Graduation from high school

Work groups of program experts were established to address each of those four goal areas. Subsequently, the advisory and work groups requested that a fifth goal area be added to address the needs of out-of-school youth (OSY), a growing sector of the migrant community.

The advisory and work groups were asked to “brainstorm” the most critical needs of migrant students. To provide structure to these discussions, the groups were asked to craft specific concern statements stemming from the seven general areas of concern identified during the national pilot project.

1. Educational continuity
2. Instructional time
3. School engagement
4. English-language development
5. Educational support in the home
6. Health
7. Access to services

Collectively, the advisory and work groups developed approximately 40 concern statements, evenly distributed across the five goal areas and representing all seven areas of concern. These concern statements represent what the advisory and work groups consider to be the most critical needs of migrant students in California.

Gather and Analyze Data

The Management Team sought to identify the types of data that could inform each of the concern statements. Early in this effort, the team realized that pursuing data for several of the concern statements would not be feasible since the nature of these concerns or the costs involved in collecting data were beyond the scope of the CNA.

In most of the concern statements, however, the Management Team was able to identify the type of data that would address the concern. The next determination was the availability of the data.

Personnel from WestEd developed a Migrant Student Profile, consisting of a list of available demographic and performance data on migrant students in California. Most of these data consist of statewide collections administered by the CDE or the MEP. Sources within the Migrant Student Profile that were helpful in the CNA process included reports on migrant student performance on examinations, such as the California Standards Tests (CSTs), the California English Language Development Test (CELDT), and the California High School Exit Examination (CAHSEE).

To inform other concern statements, the Management Team surveyed the MEP regions to determine the availability of data. With the exception of intake data on OSY, most of the other demographic and programmatic data collected by regional offices were not useful for CNA purposes.

To augment the scarce data available from the regions, the Management Team conducted several data collection efforts targeting key concern statements. A parent questionnaire was developed and administered to approximately 800 families of Migrant Education Early Start (MEES) participants and to 300 parents of kindergarten through grade twelve migrant students. To determine the progress of migrant high school students in mathematics and English–language arts, a survey was conducted of student enrollment records of all tenth-grade migrant students in the state.

Midway in the CNA process, it became clear that data were not available to inform a number of the concern statements. In some cases the data did not exist or were not collected or stored in a usable form for CNA purposes. For example, on some statewide data collections (e.g., the California Healthy Kids Survey), migrant pupils are not flagged as a subgroup; therefore, no disaggregation of these data is possible for this group of students. The Management Team also encountered problems with its own data collection efforts. For example, in the case of the parent questionnaire, time and financial restraints made it impossible to field-test the instrument or conduct training of the staff who administered the questionnaire. Thus, the reliability and validity of these data are unknown, and the results cannot be used with any certainty to make generalizations about the migrant population.

Identify Major Findings

In the end, dependable data were available to inform only six of the approximately 40 concern statements. The type of data in all six cases are outcome data, meaning that the data provide information on the current status of migrant students but do not necessarily provide specific insights into the causes of the marked underperformance of those students. The Management Team conducted preliminary reviews of the research in several areas described in the following section to begin the process of identifying underlying causes and possible solution procedures.

1. Reading: Progress in English-language development

The data clearly show that although migrant English learners begin learning English at the same rate as other English learners do, migrant students fall

approximately one-half year behind other English learners during the several years that it takes students to reach the advanced levels of proficiency. The CELDT data do not reveal the reasons for this decline in performance. A preliminary review of the research on the performance of English learners indicates that many English learners fall behind because they are not developing the specific English skills needed to support academic learning. Possible solutions to address this problem include supplementary English language development, sheltered content, and primary language classes for migrant students who are making slower than expected progress in acquiring English.

2. Mathematics: Algebra achievement of high school students

The CNA found that almost all of the small proportion of migrant students who perform at grade level in math in the ninth grade are progressing to appropriate higher-level math courses in the tenth grade. Nevertheless, the majority of ninth-grade migrant students are not taking grade-level math courses. Only 37 percent of migrant students took the Algebra I test in the eighth grade, and more than a third of the ninth-grade students took the general math CST, indicating that these students are one to two years below grade level in math. Of those students who do take grade-level math, a very small number are scoring proficient or above on the CST. The percentage of migrant students scoring proficient or above on the three most common CST math tests in the eighth grade was approximately half of the percentage of all students scoring proficient or above statewide (14 percent compared with 30 percent).

3. School readiness: Age of kindergarteners

The CNA found that approximately 23 percent of migrant students are significantly overage in kindergarten. There may be a number of reasons for this phenomenon, including lack of awareness on the part of migrant parents, school policies, failure to conduct outreach in the migrant community, and low levels of academic readiness on the part of migrant preschoolers. On the basis of an abbreviated review of the research, the MEP would be well advised to consider a number of interventions to improve the school readiness of kindergarten pupils; however, the single most prevalent research finding points to school-based, formal, preschool programs as a promising approach to prepare at-risk children for the academic, language, social, and cross-cultural challenges of school.

4. High school: Earning a-g credits

Using the University of California a-g eligibility requirements as a benchmark, the CNA found that by the start of the eleventh grade, 50 percent of migrant high school students had not earned the expected number of course credits in language arts. Further, the CNA found that 22 percent of migrant eleventh graders had not completed any a-g qualifying English courses. Clearly, migrant students need more help with language arts. The data on course credit accrual do not reveal the causes of migrant student underachievement although significant numbers of the

pupils are classified as English learners. Theoretically, interventions addressing the language development of migrant students could begin as early as preschool and continue throughout elementary and middle school. Among the various solutions that might be considered at the high school level is the use of enhanced Portable Assisted Study Sequence (PASS) courses as an adjunct for migrant students to receive supplementary assistance and earn additional credits in language arts.

5. High school: Performance on the CAHSEE

The CNA was able to analyze CAHSEE passing rates for all students in California for the 2004-05 school year. The CNA found that significantly fewer migrant students are passing the CAHSEE compared with the rate for the general student population. In the tenth grade, the first opportunity to pass the CAHSEE, 51.6 percent of the migrant students are successful in the language arts battery compared with 77 percent of nonmigrant tenth-grade students. When the CAHSEE is administered in the eleventh and twelfth grades, passing rates drop to nearly 15 percent, while more than 30 percent of the general student population passes. A similar pattern was observed in the mathematics battery. Further analysis shows that migrant students who are English learners had the lowest passing rates, indicating that a lack of English proficiency is a major factor in failure to pass the CAHSEE. These data do not provide information on the causes of migrant students' underachievement in language arts and mathematics. The data indicate that modest percentages of migrant pupils pass the CAHSEE batteries when the exam is subsequently administered in the eleventh and twelfth grades. For pupils who have this level of academic preparation, supplementary courses aimed at CAHSEE preparation are likely to be effective. For students with lower levels of scholastic ability, the viability of other types of interventions should be studied.

6. High school: Performance on the CST

As an indicator of future success in school, the CNA looked at the performance of migrant eighth grade students on CSTs to assess their preparedness as they enter high school. The results show that a larger proportion of migrant students score below basic or far below basic levels on the mathematics, language arts, and social science batteries compared with the results for nonmigrant counterparts. Migrant English learners scoring below basic or far below basic levels constitute nearly 40 percent of all eighth-grade migrant students. In comparison, nonmigrant English learners scoring below basic or far below basic levels constitute only 10 percent of all eighth-grade nonmigrant students. Among the proposed solutions suggested was to establish partnerships between high schools and feeder middle schools to provide migrant students, especially English learners, with supplementary and articulated assistance, particularly in academic language development.

Although not a concern originally expressed by the advisory or work groups, the lack of "hard" data to inform the CNA is perhaps one of the most important findings of the entire

process. Accordingly, the Management Team recommends that a comprehensive study be conducted on the data needs of the MEP and that a plan be devised to identify the specific responsibilities of the CDE, migrant education regional offices, and school districts to collect, store, and report data on migrant students and their families. In addition, this plan should include proposals on how to increase the capacity of all levels of the MEP to collect and analyze data.

Beyond the preceding six items and the problems with collecting data, the CNA was able to gather data related to concerns clustered under the general heading “Areas of Intervention.” These are four key areas in which the MEP has historically provided support to students and families: (1) educational support from the home; (2) health; (3) access to supplementary services; and (4) engagement of the school community. Unfortunately, data reported in this section met some, but not all, of the criteria for quality of data, and inferences based on these data are necessarily tentative.

For each of these areas of intervention, an exploratory review of the research was conducted, and in each case, there are corresponding recommendations for more work to be conducted.

Make Decisions

The research garnered by the CNA validates some of the concerns and recommendations of the advisory and work groups, but it also points to questions that remain unanswered for the MEP. In the last chapter of this report, the Management Team outlines a possible strategy to bring together the extensive field experience of the MEP and the current body of relevant research knowledge on serving migrant and other marginalized students. The Team suggests that the strategic collaboration of experts representing these two fields can produce the type of guidance needed by the MEP at the state, regional, and local levels.

To advance the MEP so that it directs its program toward the documented needs of students, the Management Team suggests convening a task force consisting of specialists from the various projects of the MEP and scholars and researchers representing the academic content areas and grade-level spans who have experience with migrant or other minority or at-risk students. In addition, the Management Team recommends that this or another panel address the issue of increasing the capacity of the MEP to collect and analyze data. The work of the panel would be to analyze the issues and concerns that the CNA has raised and to tailor solutions that not only are research-based but that take into account the specific characteristics of migrant students and the MEP. The hope is that this task force can complete the job of the CNA by identifying, for each of the concern areas studied, the underlying or root causes of the underperformance of migrant students. The criteria for selecting members for this group should be developed, along with a specific timeline for deliberations and results.

In the end, the data collected and analyzed as part of the CNA process will be used to inform MEP staff and other educators involved in developing the state delivery plan for migrant education.

Chapter 1

Overview of the Study and the Program

California has the largest migrant student population in the country. The state's migrant population is more than twice that of the second largest state, Texas. The most recently published figures from the U.S. Department of Education show that in 2002-03, California's migrant student population was 300,982 (33.5 percent of the nationwide total), while Texas reported 139,635 students (15.6 percent). Those two states account for almost half of all the migrant students in the United States. California's migrant student population increased by 64 percent from 1996 to 2004. However, that growth trend ended in 2005 when 299,436 students were identified, showing a 4 percent decrease from the previous year's figures.

Demographics of Migrant Students

Hispanic students make up 98 percent of the eligible migrant student population, with Hmong and Punjabi making up the remaining 2 percent. Forty-three percent of the students live in the 10 regions that make up the Central Valley area.

Almost 85 percent of migrant children are of school age (five to eighteen years old). Although an equal number of male and female students are in kindergarten through grade twelve, the higher number of male out-of-school youth (OSY) tips the overall percentage of males to 53 percent.¹

Mobility of Migrant Students

Nearly half of all qualifying moves by students eligible during the 2003-04 reporting period were from Mexico.² More than 50 percent of those children reported moves from three Mexican states: Michoacan, Jalisco, and Guanajuato. In recent years, an increased number of families are migrating from Oaxaca. This population has posed additional challenges for recruiters and service providers. Recruiters have identified speakers of more than 14 different indigenous languages, although Mixteco accounts for the majority.

California migrants have a lower percentage of interstate moves than do migrants in Texas and Florida, because year-round work is available within the state and California is a border state, making travel to Mexico relatively easy. Interstate moves account for only 9 percent of all qualifying moves. Seventy percent of those moves are from Arizona, Washington, Oregon, Texas, and Nevada. Most moves occur during January, July, and August.

¹Migrant Student Information Network (MSIN), 2003-04 Reporting Period.

²For the purpose of student eligibility for the MEP, a qualifying move is any move during the preceding 36 months in which a family relocates its residence across school district boundaries to seek work in agricultural, fishing, or related employment.

Interstate 5, which runs 1,250 miles from Baja, California, to British Columbia (B.C. to B.C.) is the main artery of what used to be called the western stream, carrying families from Mexico to California and to the summer crops in the Dalles, Oregon, and the Yakima Valley in Washington. In the summer and early fall, thousands of families start an annual migration to San Bernardino, Riverside, and the Imperial counties in southeast California and to Yuma, Arizona, to work the winter crops. The top five crops reported by migrant families as their primary reason for migrating are grapes, lettuce, strawberries, tomatoes, and peaches.³

Program Services for Migrant Students

The California Migrant Education Program (MEP) is administered through 23 Migrant Education Regional Offices serving students in 47 of the 58 counties. The experiences of migrant students who arrive in different geographic locations can vary greatly. A student may be one of only a handful of migrant students in a small, isolated school district, or a student may be in a district with more than 14,000 migrant students. More than half of the students will receive instructional or support services or both. Although programs and services are provided year-round, more students receive services during the summer and intersession periods.

The California Portable Assisted Study Sequence (PASS) Program serves high school students who need to make up credits, meet graduation requirements, or cope with scheduling difficulties. In 2003-04, there were 8,690 students in grades nine through twelve enrolled in at least one course.

Young adults or out-of-school youth are less likely to receive services. This population is the most mobile, generally staying in the area for shorter periods than do families with children and often moving within the same region or county. Identifying, recruiting, and serving this population require considerable resources, which small- and medium-sized regions do not have.⁴

School Data for Migrant Students

In 2003 to 2004, there were 237,096 students enrolled in 4,409 public schools. Forty-seven percent of migrant students attending public schools were in Program Improvement (PI) schools. This number increased significantly as more schools were designated PI in 2004-05. There was a very low representation of migrant students in schools that met Academic Program Index (API) targets for two years. Of the 791 schools that showed improvement, only 96 of them had migrant students (359 migrant students were enrolled). The dropout rate for migrant students is believed to be well over 50 percent. However, reliable data are not available.

³Migrant Student Information Network (MSIN), 2003-04 Reporting Period.

⁴Migrant Student Information Network (MSIN), 2003-04 Reporting Period, California PASS Program, 2003-04.

Language Issues for Migrant Students

From 2003-04 the percentage of migrant students whose home language is Spanish increased from 89 percent to 90 percent. During that same period the percentage of English learners (ELs) dropped from 73 percent to 70 percent, while the percentage of redesignated fluent English-proficient (RFEP) students increased from 13 percent to 16 percent. For nonmigrant students the RFEP percentages remained consistent at 8.7 percent. Nonmigrant students were designated EL at 23 percent. Only 6 percent of migrant students were designated English only, compared with 59.8 percent of nonmigrant students.⁵

Level of Parents' Education

Forty-six percent of migrant parents are not high school graduates compared with 14.8 percent of nonmigrant parents. Fifteen percent of nonmigrant parents indicated that they are college graduates, while only 2 percent of migrant parents are college graduates. (*Note:* 25 percent of nonmigrants declined to answer, or the education level is unknown.) There are no data for 29 percent of migrant parents.⁶

Academic Achievement of Migrant Students

The California Standards Test (CST) shows that only 12 percent of migrant students meet state standards in English–language arts, compared with 33 percent for nonmigrant students. Migrant student performance has improved, but at a lower rate than that of the general student population. Only 18 percent of migrant students meet state standards in mathematics, compared with 32 percent for nonmigrant students. Migrant student performance has improved, but at a lower rate than that of the general student population.⁷

Overview of the Comprehensive Needs Assessment Process

The No Child Left Behind (NCLB) Act requires the California Department of Education (CDE) to plan and implement a Comprehensive Needs Assessment (CNA) for migrant students. The need to implement the CNA was also one of the findings included in the federal review team's report as a result of an audit conducted at the CDE during the spring of 2005.

The CNA process was developed by the Office of Migrant Education (OME), U.S. Department of Education (USDE), and based on a multiyear pilot study conducted in four states: Texas, Pennsylvania, Arizona, and Michigan. Each state agency that receives migrant education funds under NCLB was required to duplicate the process in a similar manner beginning in 2005-06. The CNA's findings and recommendations are meant to serve as the basis for the CDE to develop future action plans for the MEP. In addition, local educational agencies, county offices of education, Migrant Education

⁵Ibid.

⁶Ibid.

⁷STAR 2004, California Standards Tests (CSTs). <http://www.cde.ca.gov/ta/tg/sr>.

Regional Offices, and institutions of higher education are required to incorporate the recommendations of the CNA into their work plans regarding activities funded by NCLB.

The California CNA process began with the creation of the Advisory Committee and four work groups, focusing on the key goal areas defined by the federal government: school readiness, reading, mathematics, and high school and out-of-school youth. The work was organized into three phases.

During the first phase, the work groups discussed migrant students' current situations and developed concern statements in seven areas. These statements served as hypotheses regarding the obstacles to migrant student achievement. Phase two involved gathering and analyzing data to determine whether the concerns were valid, and phase three was designed to prioritize needs, develop solutions, and propose an action plan to improve student achievement.

During the process the CNA Data and Management Team (Management Team) determined that it was not feasible to follow the design of the model through the third phase. Instead, after the data had been gathered, the Advisory Committee brainstormed solutions, and the Management Team conducted an initial exploration of relevant research in selected areas. The conclusion was not an action plan, but rather recommendations for strengthening data collection in the migrant program and determining the next steps to better understand migrant students' needs.

The steps in the collection and analysis of data are explained in Chapter 2, the results of the data gathering for each concern statement are reported in Chapter 3, initial exploratory research is covered in Chapter 4, and next steps and recommendations are discussed in Chapter 5.

Purposes, Content, and Focus of the Comprehensive Needs Assessment

On the basis of the CNA, the CDE must describe the following in the state plan for migrant education: (1) a comprehensive plan for needs assessment and service delivery that identifies the special needs of migrant children and their families; (2) ways in which the priorities that the CDE establishes relate to the CNA; and (3) ways in which the CDE will award subgrants according to the priorities established.

Required elements of the CNA include but are not limited to the following: (1) the data and analyses must be current; (2) the process must identify the "special" educational needs of migrant children; (3) the analyses must use the best information available at the time of the report; (4) the results must guide the development of the CDE's state plan for migrant education, including delivery of services to meet migrant children's identified needs; and (5) the CNA must establish statewide priorities.

An overriding element of the CNA is that data and data analyses are to be used as a primary means to determine the current scholastic standing of migrant students, including the gap that separates those students from achieving mainstream grade-level and graduation standards. The CNA's focus must be on priority-for-services (PFS) students, defined as pupils who are failing or at risk of failing and have an interrupted

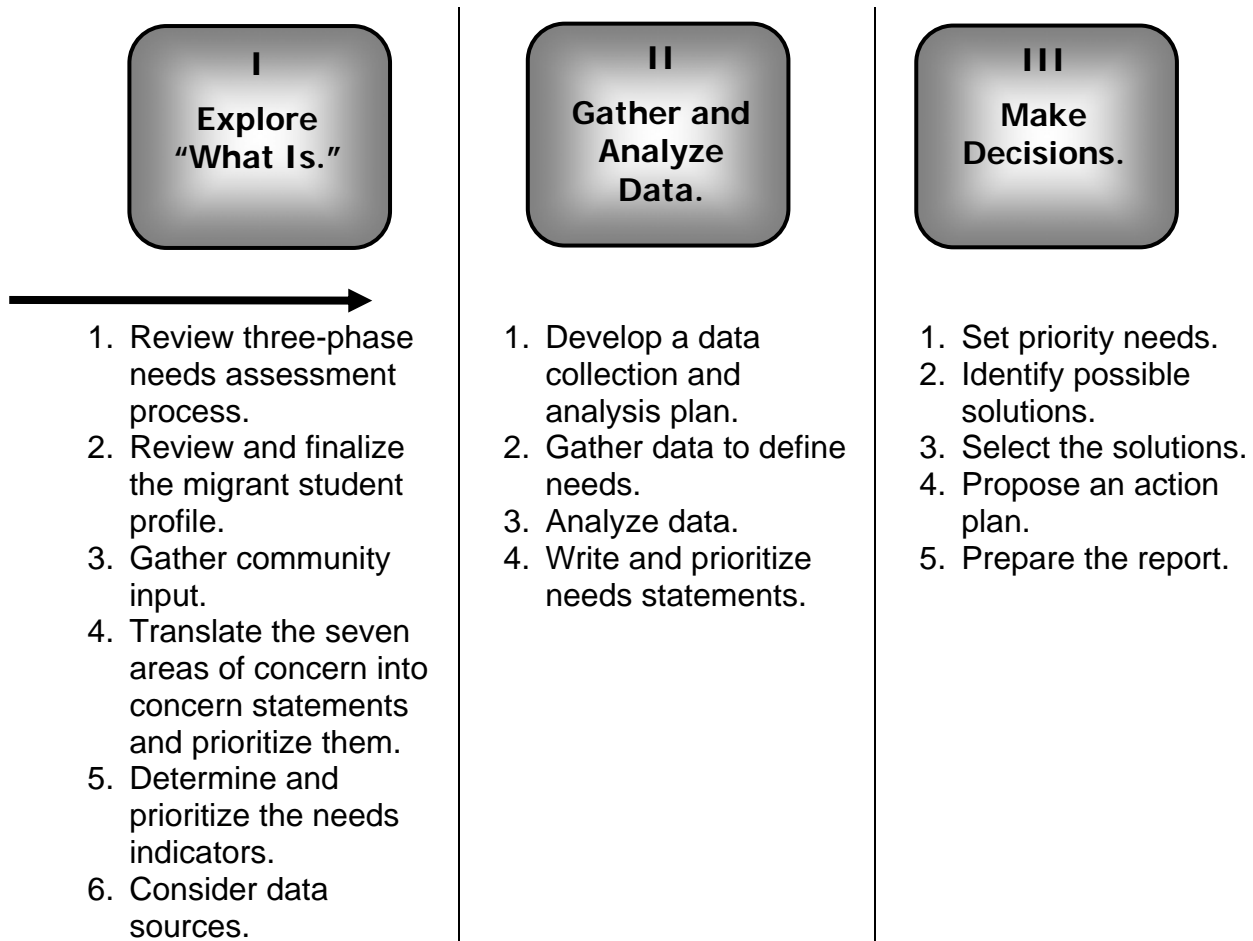
school year. Within this context, the CNA must be conducted within a framework of the four major goal areas. On the basis of the Advisory Committee's recommendations, and with the concurrence of the Team, a fifth area, out-of-school youth, was added.

In each of the focus areas, whenever possible, the CNA analyzed the following topics that had been identified in the pilot study as critical areas of concern regarding the schooling of migratory students: (1) educational continuity; (2) instructional time; (3) school engagement; (4) English language development; (5) educational support at home; (6) health; and (7) access to services.

Chapter 2

CNA Procedures

The CDE began work on the CNA project in May 2005. The work was organized according to the major steps recommended by the USDE. This framework is illustrated in the following graphic (*CNA Guidebook*, n.d., 20):



During the implementation of the CNA, the Management Team encountered serious data gaps. Because of the shortage of reliable data, the Team attempted several alternative approaches, such as the data collection by the CNA itself and reviews of the research literature. These activities delayed the CNA's process significantly. Additionally, both efforts failed to compensate fully for the lack of hard data. Details regarding these issues are contained in chapters 3 and 4.

Calendar of Activities

The major CNA activities were conducted according to the following calendar:

May 2005	Appointment of CNA Manager
May–July 2005	Establishment of CNA Team
Aug.–Oct. 2005	Invitations sent to CNA Advisory Committee
Aug.–Dec. 2005	Formation of CNA Work Groups
Nov. 2005	First Advisory Committee meeting
Jan. 2006	First Work Group meeting
Feb. 2006	Second Advisory Group meeting
March 2006	Second Work Group meeting
April 2006	First meeting of Migrant Regional Data Liaisons
May 2006	Third Advisory Committee meeting
June–Oct. 2006	Intensive data collection period
July 2006	Second meeting of Migrant Regional Data Liaisons
Nov. 2006–Jan. 2007	Data analyses conducted
Jan. 2007	Fourth Advisory Committee and Work Group meeting
Feb.–May 2007	Reviews of the literature on selected items
Feb.–Aug. 2007	Development of final report
April 2007	Fifth Advisory Committee meeting
June 2007	Submission of draft report

The roles of the Management Team, CNA Advisory Committee, and CNA Work Groups are discussed next.

Management Team

The primary group responsible for developing, implementing, and reporting on the CNA was the Management Team. This group worked closely with the larger CNA Advisory Committee and smaller work groups.

CNA Advisory Committee

The USDE guidelines indicate that the CNA Advisory Committee should consist of a broad range of individuals with knowledge and experience in determining the needs of migrant students. Each member should have an adequate understanding of (1) the MEP; (2) the four major goal areas; (3) data collection and analysis; and (4) promising practices with at-risk students.

The primary tasks of the CNA Advisory Committee were to (1) provide advice to the Team and work groups in planning and conducting the CNA work; (2) assist in the analyses of the migrant student profile and related needs data; (3) review the seven major areas of concern; (4) review and comment on drafts developed by the Management Team and work groups; and (5) make recommendations regarding program priorities, solutions, and other potential actions.

CNA Work Groups

To facilitate the work of the Advisory Committee, the USDE recommended that the CNA also convene several work groups. The primary purpose of these groups is to refine the work of the Advisory Committee, especially in developing concern statements and needs indicators.

The Management Team also decided that including the leaders of each of the work groups in the Advisory Committee would facilitate communication.

Immediately after the work groups were formed, the High School Work Group was assigned the added responsibility of handling issues associated with programs for out-of-school youth.

The four work groups worked independently but cooperatively with the Advisory Committee and Management Team through the development of concern statements, needs indicators, and plans for data collection. Subsequently, the work groups were merged into the Advisory Committee, and in January 2007, they functioned as a single body.

Developing Concern Statements

The first task the CNA Advisory Committee was to develop concern statements in November 2005. In preparation, the Management Team created the migrant student profile, which listed the following data elements on migrant students and their families in California:

- Test scores
- Academic progress
- School involvement
- Personal characteristics
- Family background
- Health indicators

The profile's primary purpose was to indicate those data that have already been collected on the migrant population and that might be useful in informing the CNA work. As soon as the Advisory Committee began its work on the concern statements, it became clear that following the USDE guidance would be challenging.

A hypothesis regarding the school performance of migrant students related to their migrant lifestyle that was stated as a collective concern and took into account all MEP goals. The concern should focus on the needs of migrant students and their families, and concerns related to the school or educational system should be temporarily set aside. In addition, it should be a simple, single, straightforward concern.

Initially, the work of the CNA participants was slowed because the group gave its attention to the statements' form rather than to the contents. This problem persisted

when the four work groups met in January 2006. The Advisory Committee also struggled with this task.

Consequently, when the Advisory Committee met for a second time in February 2006, the members were asked to refine and prioritize a list of concern statements that had been developed up to that time. Even though most of the concern statements were still in draft form, the Advisory Committee made the recommendations for prioritization as reported in table 2.1, "Prioritization of the Concern Statements." The Advisory Committee members distributed their votes among the items in each group. For example, in the reading group, since there were nine concern statements, each member distributed up to nine votes among the nine items. All nine votes could be assigned to a single item, or the nine votes could be distributed among all nine items (one vote for each item). On the basis of this procedure, the top-ranked reading item garnered 31 votes, while the bottom-ranked item received only three votes.

Table 2.1. Prioritization of the Concern Statements

Concern Statements for School Readiness	Number of Votes
Prekindergaren migrant parents are not aware of the basic school readiness skills needed for their children to enter kindergarten.	30
Prekindergaren migrant students have limited English language and literacy skills to perform competitively with their peers in kindergarten.	23
Prekindergaren migrant English learners do not enter kindergarten with basic concepts developed in their primary language.	20
Migrant parents of prekindergarten children lack the advocacy skills to exercise their parental rights in the school and the community.	14
Prekindergarten migrant students are not able to gain access to physical and behavioral health care services.	7
Prekindergarten migrant children do not demonstrate their true competencies on existing assessment tools in their primary language.	2
Migrant students do not remain long enough in an area to benefit from the prekindergarten assessments or programs.	2

Concern Statements for Reading	Number of Votes
Migrant students experience instructional gaps with reading and writing competencies.	31
Migrant students experience delays in receiving referrals to reading interventions.	21
Migrant students have unmet health needs.	20

Migrant students experience gaps in English language development (ELD) instruction.	15
Migrant students experience a loss of instructional time.	14
Migrant students lack print materials in the home.	13
Migrant students often do not qualify for services that support literacy development.	5
Migrant students experience more than one school setting during the school year.	4
Migrant students' experiences outside the home and community are limited.	3

Concern Statements for Mathematics	Number of Votes
Mobile migrant students have gaps in their mathematics instruction.	27
Migrant families may not be aware of practices that contribute to higher academic achievement in mathematics.	15
Migrant students may not have access to mathematics resources outside of school.	13
Mobile migrant students may not have sufficient access to mathematics supplemental services.	11
Mobile migrant students may have difficulty in developing consistent coherent academic mathematical language.	11
Mobile migrant students may experience conflicting arithmetical algorithms.	7

Concern Statements for High School and Out-of-School Youth (OSY)	Number of Votes
Migrant high school students and OSY lack guidance and support to complete the educational process.	28
Migrant high school students do not graduate from high school because they lack a sense of belonging.	25
High school students and OSY are not able to participate fully in the educational process when their basic needs are not met.	17
Eighth-grade migrant students are not entering high school with grade-appropriate social and academic skills.	17
Migrant high school students are not placed in courses that count toward graduation requirements.	14
Migrant high school English learners are not in courses appropriate for their language proficiency.	8

Migrant high school English learners are not acquiring English proficiency in a timely manner.	8
OSY do not have the reading skills to participate in the educational process.	7
Parents of migrant high school students are not gaining access to supplementary services.	7
Migrant students who recently arrived in the U.S. do not have the reading skills to pass their courses.	6

After the concern statements had been prioritized, the work groups and the Management Team refined the concern statements. Eventually, it was decided to postpone the refinement of the concern statements until more work was done to determine the corresponding needs indicators and data collection procedures.

Establishing Needs Indicators

During the spring of 2005, the Advisory Committee and work groups met to work on needs indicators. According to guidance from the USDE, each concern statement is to be accompanied by one or more needs indicators, the purpose of which is to:

- Verify and provide convincing evidence that the need exists.
- Set measurement parameters to specify the extent of the need and to define the focus of the concern statement.
- Provide a road map for the data sources.

While the Advisory Committee and work groups began the process to develop needs indicators, the Management Team eventually assumed this task and conducted it concurrently with their efforts to collect data. The Team reasoned that it would be difficult to draft a needs indicator statement without considering the source and nature of the data to be collected to inform the statement.

Collecting and Analyzing Data

A preliminary step in data collection was the development of a Migrant Student Profile by WestEd staff. The profile is composed of a series of tables and charts displaying statewide demographic and assessment data on migrant students. It contains data from such sources as the MEP, Language Census, CSTs, California English Language Development Test (CELDT), and the California High School Exit Examination (CAHSEE). The profile, which has been updated periodically, was initially developed in the summer of 2005.

Procedures for Collecting Data

In June 2006 the Management Team conducted a feasibility analysis of each concern statement. The Team concluded that to move forward on concern statements, it needed

criteria to facilitate the process of selecting feasible concern statements. Through careful deliberation, the Team developed the following conditions:

- The concept to be analyzed should be clear and concise.
- The phenomena should be measurable.
- The data on the concept should be available and obtainable.
- The concern corresponds to USDE guidelines to a high degree.

Subsequently, the Management Team members ranked the concern statements by consensus scoring, and the statements were then grouped into three categories. The concerns ranked first tended to meet all the preceding criteria, and the Team decided that those concerns should be pursued immediately. Those ranked second met some, but not all, the criteria and were deemed in need of further investigation to determine the availability of data to inform the concern. Finally, the concerns ranked in the third category did not score highly. In addition, there were many concerns regarding the feasibility of continuing to work on these items, given the schedule of and the resources available to the CNA project.

Also, the Management Team recognized the disconnection between the data elements collected and reported in the Migrant Student Profile and the data required to respond to most of the concern statements. Identifying additional data sources was deemed necessary. The Team initiated contacts with the 23 MEP regional offices, first, through a survey sent to the regional directors who requested general information on the data sources available at the regional level and, second, through a request that each region assign a regional data liaison (RDL) to the project.

A second meeting between the Management Team and the RDLs was held in Sacramento in July 2006. The liaisons then returned to their regions to create inventories of existing regional data sources, which were completed in August 2006.

An analysis and follow-up study of the inventories showed that while the MEP regional offices collected substantial amounts of data on many program variables, the data, in most cases, were not useful for the CNA's purposes.

Although not a concern raised initially by the CNA participants, the concern about available data on migrant students and their families became one of the major CNA findings. The problem ranges from difficulties with data entry in statewide databases (identifying migrant students and their families in ways that would allow data to be disaggregated on these groups) to the lack of systemic data collection in the regions. These issues are addressed more fully later in this chapter.

The fact that data related to many of the concern statements were not available in statewide and regional databases greatly affected the CNA's ability to address many of the concerns. The circumstances regarding the lack of data were not clearly understood by the CNA members until late summer 2006. To meet the proposed deadline for completion of the CNA (April 2007), the group decided to implement its own data

collection efforts on a subset of concern statements. That subset included items on which data could be collected through surveys and questionnaires.

The Management Team developed two parent questionnaires: one for parents of preschool students in the Migrant Education Even Start (MEES) program and another for parents with children in kindergarten through grade twelve (K–12). Concurrently, the Management Team developed two survey forms regarding the academic progress of high school students in mathematics and language arts.

In October 2006 the MEES questionnaire was administered in all 18 regions where that program operates. The K–12 questionnaire, on the other hand, was administered by MEP staff in selected regions during parent meetings and other program events held in October. The K–12 questions were asked of an opportunistic sample of parents during a brief period, so they cannot be considered a representative sample.

The RDLs administered high school surveys, in which they documented the progress in high school math and the completion of a-g college preparatory coursework for a randomly selected sample of migrant students. Sample sizes at the regional level were proportional to the proportion of migrant students in all 23 regions. The high response rate on the student progress surveys indicates the extent to which RDLs were able to collaborate with high schools in delivering the data requested.

The Quality of the Data

In the end, the Management Team collected data associated with 24 concern statements. Closer examination of the narratives for the concern statements revealed differences in the quality of the data. The Team subsequently developed criteria through which data could be stratified:

- Random sample selection
- Instrument validity
- Comparison group

The rationale for the stratification surfaced for two reasons. First, as a part of the goal to improve the performance of all students, the No Child Left Behind Act (NCLB) requires programs and practices to be based on research. The term “scientifically based research programs” appears throughout the law—from reading to teacher professional development to supplemental education services, and of course, it includes the MEP. Second, the Management Team’s internal discussions about the presentation of concern statements and, particularly, the desire to avoid misrepresentation of findings led to the development of criteria focused on the scientific rigor of the data collected. These criteria included the data’s accurate representation of the migrant subpopulation in question, the availability of comparison population data when applicable, and the manner in which the data were collected.

The mandate for research-based programs raises questions regarding the definition, enforcement, and the quality of existing education research data. Under NCLB:

The term “scientifically based research” (A) means research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid data relevant to education activities and programs; and (B) includes research that:

- Employs systematic, empirical methods that draw on observation or experiment.
- Involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn.
- Relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators.
- Is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random-assignment experiments, or other designs to the extent that those designs contain within-condition or across-condition controls.
- Ensures experimental studies are presented in sufficient detail and clarity to allow for replication or, at a minimum, offer the opportunity to build systematically on their findings.
- Has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review.

Most of the available data in education do not meet these rigorous standards. In an analysis of the data associated with the 24 concern statements in which data were available or collected, data from only six items met the scientific parameters set forth by NCLB. On the basis of the quality of the available data, the findings were categorized as (1) findings based on “hard data,” or data conforming to rigorous scientific parameters; and (2) findings based on “soft” data, or data that did not meet established standards.

Table 2.2. Hard Data: CNA Items Meeting the NCLB Specifications

Areas of Concern	Topics	Criteria
School readiness	Age in kindergarten	Comparison groups*
Reading	ELD progress	Instrument validity, comparison group
Mathematics	Algebra	Random sample, comparison group
High school	Progress in a-g requirements	Random sample, comparison group
High school	CAHSEE results	Comparison group Comparison group
High school	Eighth-grade CSTs results	Comparison group*

*For these items, data were available on the entire state population.

The data from these six items shown in table 2.2 are referred to as “hard data,” and the findings associated with those items are in Chapter 3. Although the hard data are considered reliable, in most cases, data collected on these items represented general outcome measures, such as the results of standardized assessments. Often, these

types of data do not lend themselves to an analysis of the root causes related to migrant students' underachievement. For selected items the Management Team undertook a review of related research literature to determine the possible reasons behind the findings. Studies on English language development (ELD) progress, algebra performance, and age of kindergarten placement are included in Chapter 4. No additional research specific to migrant students and supported by hard data was available on the remaining three concern statements.

Conversely, the data collected on 18 concern statements do not meet the rigorous scientific criteria called for by NCLB. The reports on the soft data findings are also in Chapter 3. Since the soft data are not considered as reliable as the hard data, the Management Team decided to bolster the analyses of the soft data items with an initial review of the research. The studies associated with the soft data items are found in Chapter 4.

Limitations of the Data

The Management Team was given the task of obtaining relevant data for each of the concern statements for which data sources were identified. Some data sources were well known to members of the Team and were relatively easy to access. Other data required additional efforts to obtain, to manipulate for the desired analyses, or to disaggregate for migrant students. Much of the data were of limited utility, because they did not directly address the concern statements, or they inherently lacked the requisite organization.

The limitations of the data appear in the following four categories:

1. **Data are not collected.** The Management Team encountered obstacles to obtaining data for a few of the concern statements. Investigations into the various sources of data that the Team anticipated would be available resulted in dead ends. For example, the Mathematics Work Group hypothesized that migrant priority for services (PFS) students did not receive supplementary mathematics instruction soon enough after enrolling in a new school. The Team was able to determine the number of migrant PFS students and to obtain the number of those students who received MEP-funded supplementary instruction. The Team, however, was unable to obtain similar data on school district-funded supplementary instruction provided to migrant PFS students. As a result the Team was unable to determine the number of migrant PFS students receiving supplementary mathematics instruction regardless of the funding source.

To prepare a school readiness concern statement, the Team determined the number of preschool-aged migrant children who attended preschool. While the number of migrant preschool-aged children attending a MEES program was easily obtainable, the total population of preschool-aged migrant children was not entirely certain, nor was it clear that any agency or school district collects such data. As such, the Team was unable to determine the proportion of migrant preschool-aged children attending a preschool, migrant or otherwise.

- 2. Data are neither uniformly collected nor in a useful state or both.** Concern statements regarding migrant students' unmet health needs were presented in one form or another by the work groups. Initial sources of data considered were school districts, schools, and MEP regions. A preliminary review of the available data indicated that several entities collected data on types of health referrals in general, and dental care in particular, with some collecting follow-up or outcome information. The data collection efforts, however, were uneven, with limited coordination and uniformity, and ultimately the data could not be used.

A population of interest, which illustrates the situation of uneven data collection, is migrant out-of-school youth (OSY). While a few regions have developed and implemented similar protocols for registering, servicing, and monitoring OSY, most regions work independently and with limited coordination. Fortunately, a new uniform interview form adopted in July 2007 will provide an opportunity to improve the quality of data regarding OSY.

The impact that data shortcomings have on the CNA is tangible. The Team sought data on the health, social, and educational needs of migrant OSY. Because the current data lack uniformity, the Team was unable to aggregate the regional information on migrant OSY for statewide analyses. All the findings reported on OSY are based on the small number of regions that are using similar protocols.

Although nearly all regions strive to serve OSY, the extent to which protocols are transferred from a paper to an electronic format is uneven. Some regions have developed sophisticated electronic databases to house student information, such as information on persons to contact and services, while others rely on a paper portfolio.

- 3. Data are not centrally aggregated.** The Management Team was given the task of determining the number of days of instruction lost by migrant students between qualifying moves. Current efforts to collect data for attendance have limited coordination, with many receiving schools unaware that a new enrollee is a migrant student. The sending school may also be unaware that a migrant student has left until the receiving school requests transcripts. The lack of a means for schools and districts to coordinate results prevents the CNA from using the data to answer questions regarding the statewide migrant student population.
- 4. Data do not contain migrant student identifiers.** The Team encountered myriad data sets that lacked a mechanism through which migrant students could be disaggregated. For example, two concern statements from the High School Work Group sought to gain an understanding of migrant students' health status and engagement to the school community. The Team sought to use the California Healthy Kids Survey (CHKS) to address both questions, given that the survey is administered to a representative sample of middle school and high school students throughout the state. The CHKS, however, lacks a migrant student identifier. As an alternative, the Team developed and used a migrant-like construct, selecting students who reported themselves as Hispanic, had moved more than once in the

past 12 months, and attended a high school with a high migrant population. Using the construct, the Team approximated the responses of migrant students. The validity of the construct, however, is untested and of limited usefulness.

Other possible data sources that the Team considered but that lacked a migrant student identifier are First 5, Advancement Via Individual Determination (AVID), and the California Health Interview Survey.

The limitations of existing data have become key findings of the CNA process, a result that was not anticipated at the outset. These findings document the need to improve data collection at both the regional and state levels. Specific recommendations on how to strengthen data collection are included in Chapters 4 and 5 of this report.

References

CNA guidebook: Comprehensive needs assessment: Focusing statewide programs on student needs. n.d. Washington, DC: Office of Migrant Education.
<http://www.cesdp.nmhu.edu/migrant/docs/product.doc>. (accessed March 7, 2008).

Chapter 3

Results and Findings from the Data

This chapter describes how the Advisory Committee, the work groups, and the Management Team developed each concern statement in reading, mathematics, school readiness, high school, and OSY.

Each work group developed the following components:

- Concern statements identify particular barriers to migrant student success.
- Needs indicators specify the measures needed to validate the concern.
- Data collections outline data sources and methods of data collection.
- Data summaries highlight the data findings relative to the original concern statement.
- Needs statements establish a numerical gap of *what is* and *what should be*.
- Initial solutions offer possible strategies for migrant student success.

The initial solutions presented in this chapter are based on discussions of the Advisory Group members and the Management Team. A more structured process is needed to further identify program solutions. This procedure is outlined in Chapter 5.

Because the availability and quality of the data vary, all concern statements have been grouped into four clusters, which are discussed as follows:

Academic outcomes. The data gathered for the concern statements in this section met all three criteria for data quality: random sample selection, instrument validity, and comparison group (see Chapter 2). These outcome data provide targets for measurable improvement. However, from these data alone, it is not possible to isolate the particular barriers for migrant students that the migrant program can influence.

Areas of intervention. The data gathered for the concern statements in this section met some, but not all, of the criteria for data quality, and inferences from the data are necessarily tentative. However, these statements shed light on areas of concerns for migrant students, such as educational support in the home, health needs, access to supplementary services, and engagement in the school community. Migrant programs have historically provided support in these areas, which are included as items for further refinement.

Out-of-school youth. The concern statements and related findings in this section focus on school-age migrant youth who are not enrolled in school but are entitled to services.

Concern statements not studied. These concern statements could not be developed further because of limitations on data or concerns for feasibility. Efforts to procure the data and the other problems encountered are reported with each concern statement.

Table 3.1, “Index of Concern Statements,” provides a list of topics addressed by the work groups.

Table 3.1. Index of Concern Statements

	Topics	Work groups' areas of concern	
Academic outcomes	Ages of migrant students in kindergarten	School readiness	
	Progress in English language development	Reading	
	Placement of migrant students in algebra	Mathematics	
	Academic skills for entering high school	High school	
	Progress in a-g requirements	High school	
	Rates for passing the CAHSEE	High school	
Areas of Intervention	Educational support from the home Parental support of literacy development Socioeducational experiences beyond the school day Parent's awareness of mathematics issues Parental help with mathematics homework	School readiness, reading, mathematics	
	Unmet health needs Unmet health needs of preschool migrant students Effects of unmet health needs on school achievement Unmet health needs of older students	School readiness, reading, high school	
	Supplementary Services Access to mathematics services	Mathematics	
	Engagement to the school community	High school	
	Out-of-school youths	Lack of skills or educational goals for success	Out-of-school youths
		Health and socioeconomic needs	Out-of-school youths

Concern statements not studied	Bilingual preschool instruction	School readiness
	Parental knowledge base and advocacy	School readiness
	Number of accumulated preschool hours	School readiness
	Academic effects of migrancy on reading	Reading
	Timely enrollment associated with a qualifying move	Reading
	Mismatch between diagnosis and supplementary instruction	Reading
	Academic effects of migrancy on mathematics	Mathematics
	Differences between schools and districts in mathematics instruction	Mathematics
	Conflicting mathematical procedures	Mathematics
	Social skills for entering high school	High school
	Parental contact with school counselors	High school

Academic Outcomes

The topics examined in this section are the ages at which migrant student enroll in kindergarten, English language development in reading, academic skills for entering high school, progress in a-g requirements, and rates for passing the CAHSEE.

Ages of Migrant Students in Kindergarten

In California children may be enrolled in kindergarten as long as their fifth birthday falls on or before December 2 of the school year. Generally, it is to a student’s advantage to begin kindergarten at as young an age that he or she is eligible. If a student does not enroll in kindergarten in a timely fashion or is retained for an additional year, many educators feel that these delays often cause socioemotional and academic disadvantages for the students.

Concern Statement

The general perception among the CNA participants was that a disproportional number of migrant students do not enroll in kindergarten at the earliest eligible age and that many migrant children may be retained in kindergarten. Therefore, the CNA participants advanced the following concern statement:

Migrant students are not enrolled in kindergarten and do not advance to the first grade in a timely manner.

Needs Indicator

The CNA participants felt that the average age of migrant students in kindergarten and subsequently in the first grade is significantly higher than the average age permitted by the California *Education Code*. School districts must admit kindergarten children at the beginning of the school year (or whenever they move into a district) if an individual student will be five years of age on or before December 2 of the school year (*EC* Section 48000[a]). Since a school year is defined in statute as the period from July 1 to June 30, the age span of students required to be accepted in kindergarten ranges from 4.7 to 5.9 years.

Data Collection

To compare the ages of migrant kindergarteners with the legally permitted age span, the Management Team accessed the school enrollment data for all migrant students in kindergarten in the 2004-05 school year. From these data, the Management Team calculated the statistics for the age span of the migrant kindergartners and compared those figures with the legally permitted norms.

Data Summary

The results of the analysis are reported in Table 3.2, "Ages of Migrant Kindergarten Students, 2004-05."

Table 3.2. Ages of Migrant Kindergarten Students, 2004-05

Age spans (years and months)	Numbers of students	Percents of students
4.5 to 4.9	3,998	14.8
5.0 to 5.9	16,288	61.0
6.0 to 6.9	6,205	23.2
7.0 to 7.3	208	< 0.1
Total	26,699	100.0

Approximately 26,699 migrant students were enrolled in kindergarten in 2004-05. Their ages at enrollment ranged from 4.5 to 7.3 years. Among the migrant students, 14.8 percent of them took advantage of early enrollment, while 61 percent enrolled within the legally permitted norm. More than 23 percent enrolled later than the legally permitted age or were retained at the kindergarten level. The results also show that 208

migrant students (less than 1 percent of all migrant kindergartners) were older than 6.9 years (a year behind) when they began kindergarten.

With the exception of immigrant students who reach five years of age while outside the United States, very few compelling arguments support such late enrollment of kindergartners. About 1 percent of the children begin kindergarten more than one year later than the age permitted by law. Although this group is small, it represents an extremely at-risk young population.

Needs Statements

The following needs statements were developed on the basis of the age-of-enrollment findings.

1. The percentage of migrant kindergartners who enroll in kindergarten after the age of 5.9 years should be reduced from 23 percent to approximately 10 percent, which is the percentage of migrant students living outside the United States when they reach five years of age.¹
2. The 1 percent of migrant students who are more than 6.9 years of age, but who are still enrolled in kindergarten, should be considered priority for services (PFS) students.

Initial Solutions

The CNA Advisory Committee and the Management Team proposed the following solutions:

1. The MEP should implement a statewide enrollment campaign to encourage and help migrant families to enroll kindergarten students at as early an age as permitted by school districts (sometimes as early as 4.5 years of age and certainly never beyond 5.9 years, the oldest age permitted by law).
2. The MEP should initiate a six- to eight-week school readiness academy, including a parent involvement component, for entering migrant kindergarten children who have not participated in any significant preschool education.
3. The MEES program should provide home-based academic support services to low-performing at-risk migrant kindergartners.
4. The MEP should monitor the enrollment of migrant children in the state preschool program to determine (1) which families need assistance to enroll children or place them on the waiting list, or both; and (2) which children have not attended preschool and therefore may need alternative early childhood assistance, such as the MEES program.

¹The Management Team has not been able to determine the exact percentage of migrant kindergartners who are foreign born and who immigrate to the United State after the age of five years. Approximately 12.5 percent of all English learners are foreign born.

Preliminary Findings

While current school attendance data clearly show the percentage of migrant students who are overage at the kindergarten level, the data do not provide any particular insights into the causes related to these phenomena. Consequently, the Management Team conducted a preliminary literature review to clarify this issue. That review is found in Chapter 4.

Progress in English Language Development

More than 94 percent of migrant students come from a home where a language other than English is spoken, and 70 percent have been classified as English learners. More than 99 percent of these students have a Spanish-language background, and almost all are immigrants or the children of immigrants from Mexico.

Concern Statement

The CNA Advisory Committee and the Reading Work Group expressed interest in the progress that migrant English learners are making in learning English. This concern was specifically expressed as:

English learner migrant students are not acquiring English at the expected rate of development.

The CNA participants reasoned that migrant students might fall behind in ELD for the following reasons:

1. Migrant students tend to miss more school than mainstream students do.
2. Because of frequent moves, migrant students may not receive continual ELD instruction, or the ELD instruction may not be articulated.
3. Migrant students tend to live in isolated and low socioeconomic conditions, and therefore, they might have less exposure to academic English.
4. Many migrant students move with their families between the United States and Mexico or between rural Spanish-speaking communities in the United States.

State and federal laws require that English learners acquire English as rapidly, efficiently, and effectively as possible. There is considerable controversy over the exact amount of time that it takes the average English learner to reach proficiency in English comparable to the time needed for native English-speaking peers.

As a result of the passage of Proposition 227, the California *Education Code* recommends that English learners be placed in a specialized English program for a period not generally expected to exceed one year. However, this time frame is not supported by current research.

During the last decade a number of reliable and rigorous research studies have become available to inform this question. Reports from the National Literacy Council and a number of reviews of the research literature suggest that English learners can acquire

general communication skills in English in approximately one to three years on the basis of various background and contextual factors, but those students appear to take from four to seven years or more to reach full grade-level academic and literacy skills in English.

Needs Indicator

Fortunately, in California data are now available to provide an empirical answer to the time required for English learners to achieve fluency. After enrolling in a California public school and once annually thereafter, every student identified as an English learner is assessed with the California English Language Development Test (CELDT). This assessment measures listening, speaking, reading, and writing skills in English and provides a raw score through which English learners can be categorized into beginning, early intermediate, intermediate, early advanced, and advanced levels.

For each of these five levels, researchers can also determine the amount of time that a student at a particular level has been enrolled in a U.S. school. English learners can then be organized into migrant and nonmigrant student cohorts and according to the average amount of time the students in each of those cohorts have been enrolled in a U.S. school. Those cohorts can be disaggregated according to English-proficiency-level subgroups (beginning, intermediate, and so on). Thus, the amount of time that migrants at the beginning level spend in school can be compared with the amount of time for nonmigrants at the beginning level.

Data Collection

Accordingly, the Management Team worked collaboratively with the CDE to collect and analyze the CELDT data from the most recent administration of the test in October 2005. The staff wanted to determine the average amount of time that it took English learners, while they were enrolled in a U.S. public school, to progress through the five levels of the CELDT. The staff also disaggregated these results by cohorts of migrant and nonmigrant students. The analysis was conducted on approximately 1.3 million CELDT takers, 94,164 of whom were migrant students.

Data Summary

The results of these analyses are displayed in Table 3.3, “Time Enrolled in Programs for Migrant and Nonmigrant English Learners.”

Table 3.3. Time Enrolled in Programs for Migrant and Nonmigrant English Learners

CELDT levels	Migrant students (years and months)	Nonmigrant students (years and months)
Beginning	2.7	3.1
Early intermediate	3.4	3.4
Intermediate	4.3	4.2
Early advanced	5.8	5.6
Advanced	6.8	6.3

Source: Language Policy and Leadership Office, California Department of Education, 2006.

Overall, the results from the CELDT follow the pattern outlined in current research on this topic. The average English learner appears to take from six to seven years to reach the advanced level of English proficiency and thus to approximate native-speaker ability (Genesee and others 2006). Comparisons of the acquisition rates of migrant students with those of nonmigrant English learners shows that at the beginning stage of English acquisition, migrant students are progressing faster than nonmigrants. This finding may reflect those migrant students at this level who are longer-standing U.S. residents and thus have more informal, out-of-school exposure to English than the more recently arrived nonmigrant students have.

By the early intermediate level, the nonmigrant students have closed the gap, and by the intermediate level, they pull slightly ahead of the migrant students. The advantage of the nonmigrant students increases slightly at the early advanced stage, and by the advanced level, the nonmigrant English learners demonstrate a significant half-year advantage over their migrant student counterparts.

Needs Statement

These findings indicate that migrant English learners are making slower than expected progress in ELD and that their eventual attainment in ELD may be significantly lower than that of their counterpart nonmigrant English learners. As such, the needs statement is expressed as follows:

The two- and five-month lag experienced by migrant students at the early advanced and advanced levels of English proficiency when compared with the time for other English learner peers should be eliminated.

Initial Solutions

On the basis of the CELDT data, the CNA Advisory Committee and work groups suggested the following solutions regarding ELD:

1. Provide supplementary ELD instruction for migrant students at the intermediate and advanced levels so that these students have additional opportunities to acquire academic language proficiency—reading and writing skills in English.
2. Provide migrant English learners with supplementary language-focused, sheltered content instruction along academic themes (mathematics, science, social science, and literature) once they reach the advanced levels of English proficiency (e.g., PASS).
3. Provide supplementary content-focused academic instruction to migrant pupils, using native language or Specially Designed Academic Instruction In English (SDAIE) strategies so that these students can catch up or keep up academically while they are at the beginning and intermediate levels of English proficiency (e.g., PASS).
4. Provide migrant English learners with supplementary opportunities (e.g., zero period in high school) to practice and use academic English in reading, writing, and core curricular subjects, such as mathematics, social science, science, and literature.
5. **Provide staff development opportunities that prepare classroom teachers to provide ELD and academic English instruction to migrant students at their appropriate CELDT levels.**

Preliminary Findings

While the CELDT findings are based on high-quality data, those data do not provide insights into the causes of migrant students' underachievement. To analyze this issue further, the Management Team conducted a preliminary literature review related to ELD instruction for migrant students. This review is found in "Research on English Language Development," which appears in Chapter 4.

Placement of Proficient Migrant Students in Algebra

The CNA Advisory Committee expressed concern that some migrant students may be successful and performing at grade level in mathematics, and yet they are still not placed appropriately in mathematics courses that will enable them to enter college. The experience of migrant staff members indicates that migrant students are vulnerable to being placed in courses on the basis of criteria other than their skill levels. Migrant students may not be properly assessed if they enter a school partway through the year or transfer from another district and records of their previous courses are not available. The basis for the placement of migrant students may simply be the availability of space in a classroom, without sufficient attention to the students' needs or skill levels.

Concern Statement

The University of California has established a minimum set of requirements for students to be eligible for admission. These requirements, known as the a-g, are the categorical benchmarks by which college-aspiring students are able to monitor their progress. The CNA Advisory Committee and the Mathematics Work Group expressed an interest in

the progress migrant students make toward completing the a-g mathematics requirements. The concern statement follows:

Migrant students scoring proficient or above on the mathematics CST are not completing the a-g mathematics requirements successfully.

The CNA Mathematics Work Group reasoned that migrant students who complete the Algebra I CST with a score of proficient or above in the ninth grade should enroll in sequentially progressive course work. For example, ninth-grade students who score proficient or advanced on the Algebra I CST should be enrolled in geometry/trigonometry, Algebra II, or variations thereof, in the tenth grade.

Needs Indicator

The CNA members concluded that research studies dealing with passing grades were not adequately uniform measures of mastery. The CSTs performance levels, however, are criterion-referenced, reported annually, and disaggregated by various demographic variables, including migrant designation.

The Management Team decided to select a group of migrant students who scored proficient or above on the Algebra I CST test and to determine whether those students were enrolled in a-g courses during the following semester. The CNA participants hypothesized that migrant students who achieved in Algebra I in the ninth grade should be enrolled in a sequential mathematics course in the tenth grade.

Data Collection

The Management Team selected a random sample of 260 students who scored proficient or above on the ninth-grade Algebra I test in the spring of 2005. Using the statewide database of migrant students, the staff identified the high school in which each student was enrolled and then sent the names of the students and the schools to the regional liaisons. The liaisons then contacted the schools and determined which mathematics course each student was enrolled in during the fall of 2006.

Students were selected from the population of ninth-grade students who had scored proficient or above in Algebra I during the 2004-05 school year and who had a migrant designation. A total of 608 students met these criteria. A desired sample size was obtained by using commonly available Web-based, sample-size generators. The sample size calculated, by using a 5 percent confidence interval, was 236 students. An additional 10 percent was added to compensate for students no longer enrolled or for whom records could not be located, bringing the total sample to 261 students. Regional samples were calculated by using proportional distribution.

The Management Team developed a form to be completed by MEP or school staff to retrieve the student records indicating course enrollment. The forms were distributed to the regional district liaisons (RDLs) who were then responsible for the data collection, either directly or through delegates at each high school. Regional liaisons were asked to document the mathematics course enrollment for migrant students in the fall of 2006.

Data Summary

The information for 251 students was obtained through the use of this method. Table 3.4, "Mathematics Enrollment of Migrant Students, 2005-06," shows the results of the data collection.

Table 3.4. Mathematics Enrollment of Migrant Students, 2005-06

Mathematics courses	Students enrolled (percent)
No mathematics course taken	0.9
Other mathematics courses, not progressive*	0.4
Algebra I (repeated or continued)	2.2
Geometry/trigonometry	83.8
Algebra II	12.7

*Refers to courses below Algebra I.

Students who scored proficient or above on the Algebra I CST in the ninth grade would be expected to enroll in either geometry/trigonometry or Algebra II. The vast majority of migrant students in the sample, i.e., 96.5 percent (83.8 percent plus 12.7 percent), progressed to a higher-level mathematics course in the tenth grade.

The data gathered for this concern statement met the criteria of being a random sample. However, the Management Team was not able to gather data for a comparison group of nonmigrant students, and there was no way to ensure the accuracy of the data. Nevertheless, it appears that there is no current basis for the CNA Advisory Committee's concern. No need for further action is indicated beyond ensuring that this rate of enrollment continues and is evident in all migrant program regions.

Further Findings

While investigating the previous concern statement, the Management Team was disturbed to find that many migrant students did not seem to be enrolled in grade-level mathematics courses, and of those who were, many were not scoring proficient or above on the appropriate CSTs.

While it was not feasible to collect data for course enrollment on all migrant students, the best needs indicator to determine placement in courses is the CST mathematics test taken by students in the eighth and ninth grades. Students at grade level or above would be expected to take the Algebra I test in the eighth grade and the geometry test in the ninth grade. Students who are taking courses below grade level usually take the general mathematics test.

Table 3.5, “Students Taking the CST Mathematics Battery, Spring 2005,” indicates the percentages and numbers of migrant students and all students taking each of the tests.

Table 3.5. Students Taking the CST Mathematics Battery, Spring 2005

Grade-level mathematics courses	Migrant students		All students	
	Number	Percent	Number	Percent
Eighth grade				
General mathematics	8,131	56.1	243,074	48.5
Algebra I	5,114	37.5	224,291	44.7
Geometry	52	.04	13,692	2.7
Total tested in the eighth grade	13,297*	93.6	401,057*	95.9
Ninth grade				
General mathematics	4,621	37.0	131,473	24.6
Algebra I	6,018	48.2	248,498	46.4
Geometry	1,339	10.7	101,891	19.0
Total tested in the ninth grade	12,490*	95.9	535,279*	90.0

*Total includes students who took tests not listed in this table. The data are from the CDE STAR Web site, January 2007. <http://starcde.ca.gov>

The percentage of eighth-grade migrant students taking the Algebra I CST in the spring is 37.5 percent compared with 44.7 percent of the total eighth-grade student population in the state. More than a third (37 percent) of the migrant students in the ninth grade are taking the general math CST, indicating they are at least one and possibly two years below grade level.

The percentage of students who scored proficient or above each of the CSTs for mathematics is the best indicator to determine how well students are performing in mathematics. Table 3.6, “Students Scoring Proficient or Above, CST Mathematics Battery, Spring 2005,” shows those figures for migrant students and all students.

**Table 3.6. Students Scoring Proficient or Above
CST Mathematics Battery, Spring 2005**

Grade-level mathematics courses	Migrant students		All students	
	Number*	Percent	Number*	Percent
Eighth grade				
General mathematics	1,140	14	63,200	26
Algebra I	920	18	76,260	34
Geometry	20	37	10,820	79
Total scoring proficient or above	2080 [†]	69	150,280 [†]	139
Ninth grade				
General mathematics	370	8	18,410	14
Algebra I	602	10	39,760	16
Geometry	280	21	45,850	45
Total scoring proficient or above	1,252 [†]	10	104,020 [†]	19

*Figures for the number of students are calculated according to the percentages reported by DataQuest rather than by actual numbers of students taking the test, and therefore there is a margin of error.

[†]The total includes students who took tests not listed in this table. Data were obtained from the CDE STAR Web site, January 2007. <http://starcde.ca.gov>.

Of the migrant students who took the Algebra I test in the eighth grade, only 18 percent scored proficient or above, compared with 34 percent of the students statewide. The percentage of migrant students scoring proficient or above on the three most common CST math tests in the eighth grade is approximately half the percentage of the students scoring proficient or above statewide (14 percent compared with 30 percent). In the ninth grade the percentage of migrant students scoring proficient or above is also substantially lower than the percentage of students scoring proficient or above statewide.

Needs Statements

While the data reflect an accurate picture of current migrant achievement in mathematics, they do not provide insight into why migrant students are not enrolled in algebra and succeeding at the same rates as other students. The Management Team attempted to explore these questions with some initial research, which is discussed later in this report. The findings led to the development of the following needs statements:

1. The percentage of migrant students taking Algebra I in the eighth grade needs to increase to at least the level of students statewide, i.e., from 37.5 percent to 44.7 percent.

2. The percentage of migrant students passing each of the grade-level mathematics tests in the eighth and ninth grades needs to increase to at least the level of students statewide.

Initial Solutions

1. The MEP should support students in their mathematics achievement in elementary and middle school to increase the participation of migrant students in algebra in the eighth grade.
2. The migrant program should provide more supplementary services targeted to students who may be close to qualifying for Algebra I in the eighth grade but who do not get placed there.
3. The migrant program should work with parents to be advocates for their children regarding mathematics placement.
4. Migrant staff should be trained regarding mathematics placement, mathematics testing, and a-g requirements so that they can be better advocates for migrant students.
5. Migrant student participation in AVID; Puente project; and Mathematics, Engineering, Science, and Achievement (MESA); and other support programs should be expanded.
6. The migrant program should provide intervention and support services to students enrolled in algebra in middle and high schools to increase the passing rates of migrant students and close the gap between migrant and nonmigrant students (e.g., shadow classes or supplementary classes).
7. Professional development should showcase promising practices regarding the achievement of migrant students and English learners in mathematics.
8. For students who lose instructional time because of moving, a system of student records should be created that allows students to carry their records as they move (similar to the system in Alaska for military families).

Alternative Solutions

The solutions can be categorized into three areas:

1. Strengthen academic support for mathematics achievement in both elementary and middle schools.
2. Increase migrant participation in general academic support programs at the middle and high school levels (e.g., AVID, Puente project, or MESA).
3. Train migrant staff and parents to advocate for the placement of migrant students in algebra and advanced mathematics courses whenever possible.

Academic Skills for Entering High School

Success in middle school is a key determinant in student success in high school and beyond. While many other factors, such as social support and peer groups play a role, students who are experiencing academic and social difficulties in middle school will find these issues magnified in high school. According to the CDE, in 2002-03 and 2003-04,

the number of students who dropped out tripled from the eighth grade to the ninth grade.

Concern Statements

The CNA Advisory Committee and the High School Work Group expressed a concern regarding preparedness of incoming high school freshmen, given that early dissatisfaction with school can precipitate dropping out. The concerns were initially expressed as two statements:

1. Migrant high school students are not entering high school with appropriate study skills needed for academic success (such as time management or notetaking).
2. Migrant high school students are not entering high school with appropriate reading skills in the content areas in order to have academic success.

Because both statements are related to academic preparedness, the High School Work Group merged them into the following single concern statement:

Migrant high school students are not entering high school with appropriate academic skills.

The CNA Advisory Committee and the High School Work Group speculated that students experiencing academic difficulties would also demonstrate low performance on standardized assessments, such as the CSTs.

Needs Indicator

The High School Work Group investigated methods of quantifying the concern that migrant students may be entering high school ill-equipped to succeed. The needs indicator is expressed as follows:

Determine the percentage of migrant eighth-grade students scoring below proficient on the California State Standards Tests in English-language arts and mathematics compared with the scores of all eighth-grade students scoring on the same test.

Data Collection

The CDE data currently allow for retrospective analysis of student performance in eighth grade content areas and for assessing the likelihood of success in high school. Annually, every eighth-grade student takes the CST mathematics, English-language arts, and social science assessments. On the basis of criterion-referenced scores, students' scores are categorized into far below basic, below basic, basic, proficient, and advanced performance levels.

The CNA Advisory Committee secured the scores for the eighth-grade CST mathematics, English–language arts, and social science assessments for the 2004-05 school year. The committee members were interested in the percentage of incoming

ninth-grade migrant students who scored below basic and far below basic on these assessments.

Data Summary

Table 3.7, “Passing Rates for Eighth Grade English Learners,” and table 3.8, “Passing Rates for Eighth Grade Redesignated Fluent-English-Proficient Students,” show the percentages of eighth grade students in those categories who scored below basic and far below basic on any part of the CSTs compared with the rates for similar nonmigrant eighth grade students. Percentages are calculated according to all migrant and nonmigrant eighth grade students who took the assessments. The data shown in table 3.7 were taken from the results for 13, 678 migrant students and for 491,187 nonmigrant students.

Table 3.7. Passing Rates for Eighth Grade English Learners

Subjects tested	Migrant students (number)	Migrant students (percent)	Nonmigrant students (number)	Nonmigrant students (percent)
<i>Mathematics</i>				
English learners tested	8,353		78,237	
English learners scoring far below and below basic	5,382	64.4	52,377	66.9
<i>English–Language Arts</i>				
English learners tested	8,584		80,101	
English learners scoring far below and below basic	5,546	64.6	50,707	63.3
<i>Social science</i>				
English learners tested	8,498		78,532	
English learners scoring far below and below basic	6,432	75.7	58,114	74.0

Source: California Department of Education, Standardized Testing and Reporting (STAR) Results. <http://starcde.ca.gov>.

The data shown in table 3.8 were taken from the results for 13, 678 migrant students and for 491,187 nonmigrant students.

Table 3.8. Passing Rates for Eighth Grade Redesignated Fluent-English-Proficient Students

Subjects tested	Migrant students (number)	Migrant students (percent)	Nonmigrant students (number)	Nonmigrant students (percent)
<i>Mathematics</i>				
RFEPs tested	3,713		53,731	
RFEPs scoring far below and below basic	1,114	30.0	16,837	31.3
<i>English–language arts</i>				
RFEPs tested	3,665		54,336	
RFEPs scoring far below and below basic	570	15.6	7,477	13.7
<i>Social science</i>				
RFEPs tested	3,709		54,202	
RFEPs scoring far below and below basic	1,171	31.6	15,729	29.0

Source: California Department of Education, Standardized Testing and Reporting (STAR) results. <http://starcde.ca.gov>.

According to the CDE data, a disproportionate number of eighth-grade migrant English learners are performing at levels that would endanger their success in high school. More than 40 percent are not achieving in mathematics and English–language arts, and nearly 50 percent are not achieving in social science. Migrant RFEP students, on the other hand, perform at levels approaching those of nonmigrant students. Key to understanding the findings, however, is that by the eighth grade RFEP students have developed a proficiency in the language to merit redesignation. The migrant English learners, by contrast, may be more recent arrivals lacking the requisite English proficiency.

Needs Statements

Because the findings suggest that language proficiency is an underlying factor in how well students perform on standardized tests, this factor must be considered in efforts to address student performance. As such, the needs statements are as follows:

1. The percentage of eighth-grade migrant students who score below or far below basic on the mathematics portion of the CSTs should be reduced from 40.3 percent to 16.5 percent, the rate for nonmigrant students.
2. The percentage of eighth-grade migrant students who score below or far below basic on the English-language arts portion of the CSTs should be reduced from 40.5 percent to 15.6 percent, the rate for nonmigrant students.
3. The percentage of eighth-grade migrant students who score below or far below basic on the social science portion of the CSTs should be reduced from 47.4 percent to 18.2 percent, the rate for nonmigrant students.

Initial Solutions

To improve migrant students' academic performance, the MEPs should:

1. Strengthen collaboration between high schools and feeder middle schools to ensure that low-performing migrant students have access to academic support programs, including English-language tutoring.
2. Facilitate parent participation and advocacy for students in middle school and as they transition to high school.
3. Facilitate migrant student participation in academic support services that may include after-school and summer programs and native language supplemental instruction in the content areas.
4. Facilitate study skills workshops for migrant students that may include tips on forming study groups and notetaking strategies and include test-taking skills for English learners.
5. Facilitate social support groups, such as a student organization for migrant students, at middle and high school levels.

Progress in A-G Requirements

Many migrant students fail to graduate from high school with the prerequisite course work to be eligible to attend four-year colleges and universities. While data show that only 35 percent of graduating high school students are eligible for four-year higher education, the number of migrant students who are eligible is unknown.

The benchmarks for eligibility for higher education in California are the University of California's a-g requirements. The purpose of those requirements is to ensure that potential college and university students have a minimum educational background. Many factors may prevent students from meeting the a-g requirements, including the tracking of students into basic skills course work.

Concern Statement

The CNA Advisory Committee and the High School Work Group expressed a concern about the low levels of a-g course completion by migrant students. This concern was expressed as follows:

Migrant high school students are not completing courses that meet a-g requirements.

The High School Work Group surmised that migrant high school students entering the eleventh grade who had not completed a sufficient number of a-g courses to be on track for college eligibility would either graduate ineligible for higher education or not graduate at all.

Needs Indicator

The CNA Advisory Committee and the High School Work Group further determined that by the midpoint of their high school education, migrant students need to have completed half of the four years of the English requirement to be on track for graduation and admission to college. As such, the High School Work Group expressed the following needs indicator:

Determine the percentage of migrant high school students who have completed two years of a-g requirements by the start of the eleventh grade.

Data Collection

To gather the requisite data, the Management Team decided to analyze the progress of a random sample of eleventh-grade migrant students. To ensure validity, the team members drew the sample from the group of ninth grade students in public high schools during the 2003-04 school year (a total of 11,463 students) and determined proportional representation from all regions. The sample included 409 students from across the state.²

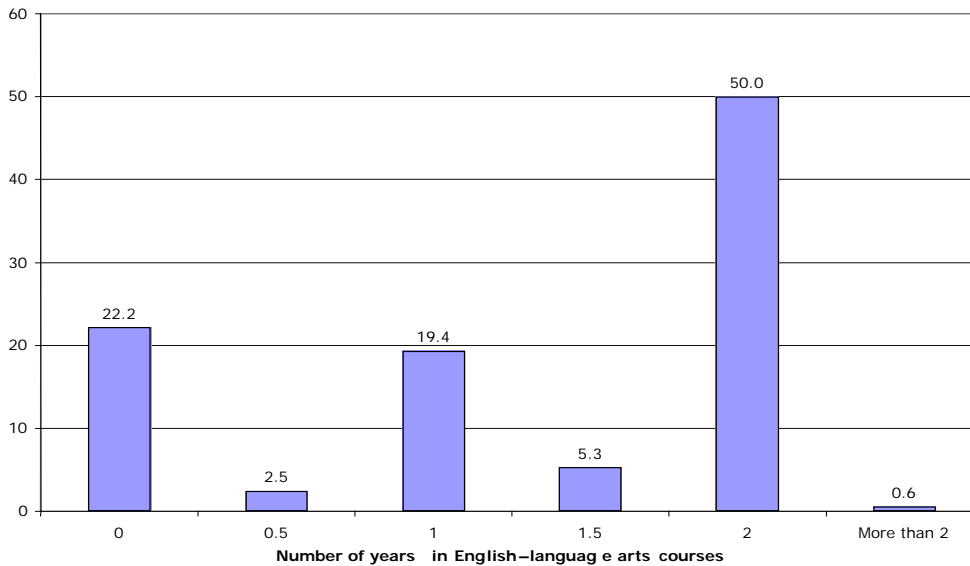
For each student in the sample, regional liaisons visited the student's high school in the fall of 2006 to determine which a-g courses the student had completed by the beginning of the eleventh grade (customized lists of a-g courses were prepared for each school, because course names, numbering schemes, and titles vary by the districts).

Data Summary

A total of 404 forms were returned of which 342 contained valid data. The remaining 62 forms were not included in the analysis. All regions returned the forms, and only 1.2 percent of the forms remain outstanding. Figure 3.1, "Migrant Students Completing A-G English–Language Arts Courses," shows the results of the survey.

²The Management Team determined the desired sample size by using commonly available Web-based sample-size generators. The sample size needed at a 5 percent confidence interval (commonly referred to as margin of error) and at a 95 percent confidence level was 372 students. The sample size was increased by 10 percent to compensate for students no longer enrolled or for whom records could not be located, bringing the total sample size to 409 students. Sample sizes for each region were calculated by using proportional distribution.

Figure 3.1. Migrant Students Completing A-G English–Language Arts Courses



According to the data, 50.6 percent (+/– 5 percent) of migrant students completed at least two years of a-g English–language arts courses by the start of the eleventh grade. However, one out of four migrant students (24.7 percent) completed less than one year of a-g English–language arts requirements.

Needs Statements

The Management Team did not believe it was feasible to collect data from a comparison group. Therefore, the members agreed on a long-term goal for 100 percent of migrant students to complete two years of a-g requirements by the start of the eleventh grade and the following short-term goals:

1. The percentage of entering eleventh-grade migrant students who have completed two years of the a-g English–language arts course requirements should increase from 50 percent to at least 75 percent or more.
2. The percentage of entering eleventh-grade migrant students who have completed at least one year of the required English–language arts units should increase from 75.3 percent to 95 percent.

Initial Solutions

To address the low a-g completion rates for migrant students, MEPs should:

1. Strengthen relationships with supplementary programs, such as PASS, and further encourage students at risk of falling behind to pursue such opportunities to meet a-g requirements.

2. Facilitate migrant student participation in partnerships between high schools and the University of California and the California State University system that enhance student achievement.
3. Focus on increasing migrant parents' knowledge regarding a-g course requirements before and while their children are in high school.
4. Identify successful strategies for increasing a-g completion rates.

Rates for Passing the California High School Exit Examination

State and federal laws require that every student in public schools complete a series of standardized tests to assess progress. Such requirements become more daunting for students with limited or disjointed educational opportunities and for those with limited academic and social support.

Concern Statement

Accordingly, the CNA Advisory Committee and the High School Work Group expressed an interest in the graduation rates for migrant students. This concern was specifically expressed as:

Migrant students are not completing requirements that lead to high school graduation.

To comply with the requirements of NCLB, California instituted the California High School Exit Examination (CAHSEE) as a benchmark for graduation from public high school. The CAHSEE is intended to ensure that every public high school student graduates with a level of mastery in English–language arts and mathematics.

Needs Indicator

The CDE requires that the CAHSEE be administered once a year to every tenth-grade public high school student. The CAHSEE has English–language arts and mathematics sections that are administered separately. Students who do not pass one or both sections of the exam in the tenth grade will have at least two opportunities in the eleventh grade and three additional opportunities in the twelfth grade. Students are required to pass each portion of the exam before receiving a high school diploma. The CDE collects demographic information on students, providing a source that enabled the CNA Advisory Committee to determine how migrant students were faring on the CAHSEE. As such, the needs indicator was expressed as:

Determine the percentages of migrant students passing the CAHSEE in the tenth, eleventh, and twelfth grades compared with the percentages for nonmigrant students.

Data Collection

The Management Team obtained 2005-06 CAHSEE data for migrant students from CDE. Unless otherwise noted, the statistics were obtained from publicly available reports the CDE releases annually.

Data Summary

Among the variables included in the migrant CAHSEE data set are demographic information, such as grade and gender, as well as the students' English proficiency. Only a few variables are adequately comparable. Statewide CAHSEE data available from CDE do not indicate the English language proficiency designation of the students who passed, for example, but rather report passing rates according to students' English proficiency designations.

The pattern observed for the passing rates for both CAHSEE sections is consistent across the migrant and statewide student populations. As shown in table 3.9, "Results for CAHSEE Mathematics, 2005-06," the mathematics CAHSEE passing rate for migrant students is nearly 27 points lower than the passing rate for all students statewide. Similarly, migrant students who took the English–language arts CAHSEE in 2005-2006 passed at only half the rate of their statewide counterparts (28.9 percent compared with 60.9 percent), as shown in table 3.10, "Results for CAHSEE English–Language Arts, 2005-06." Not surprisingly, the proportion of students passing the CAHSEE drops significantly in the eleventh and twelfth grades for both groups.

Table 3.9. Results for CAHSEE Mathematics, 2005-06

Grades	Migrant students		Statewide students	
	Tested	Passed	Tested	Passed
10	11,989	7,085	481,892	363,704
11	10,556	1,706	179,646	58,931
12	8,633	1,168	117,568	36,633
Others*	67	15	15,162	7,472
Total	31,245	9,974	794,268	466,740

*Includes adult, home study, and continuing education programs.

Source: California Department of Education, California High School Exit Examination.

<http://cahsee.cde.ca.gov>.

Table 3.10. Results for CAHSEE English–Language Arts, 2005-06

Grades	Migrant students		Statewide students	
	Tested	Passed	Tested	Passed
10	11,989	6,191	483,626	372,607
11	10,556	1,546	166,389	57,080
12	8,633	1,273	113,084	35,731
Others*	67	12	13,580	8,044
Total	31,245	9,022	776,679	473,462

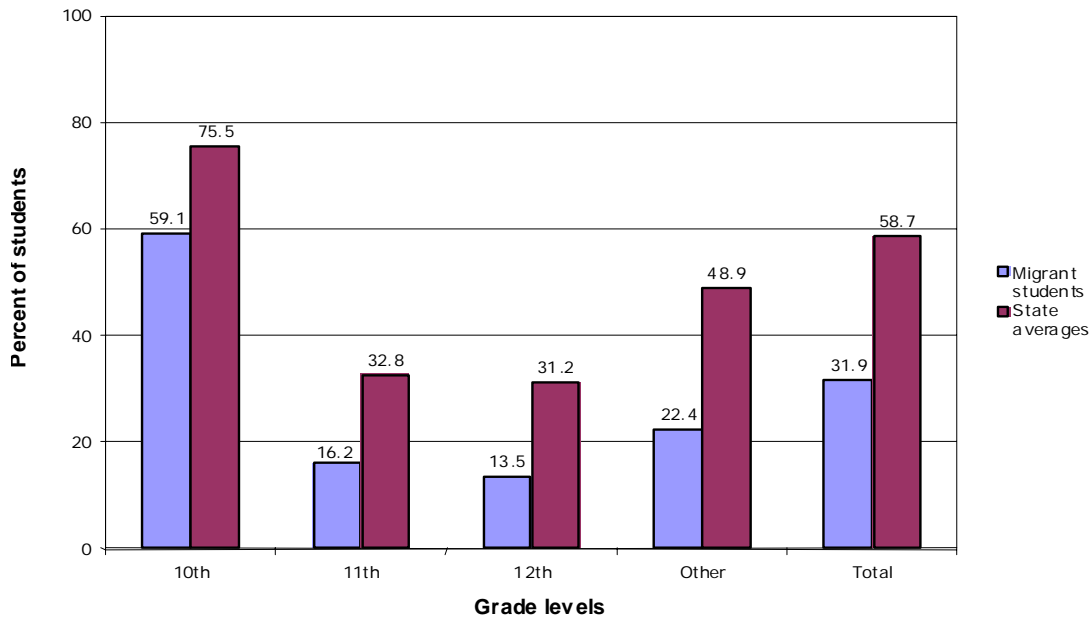
*Includes adult, home study, and continuing education programs.

Source: California Department of Education, California High School Exit Examination.

<http://cahsee.cde.ca.gov>.

Figure 3.2, “Percentages of Students Passing the CAHSEE Math, 2005-06,” shows that the disparity in the passing rates on the mathematics CAHSEE increases in the eleventh and twelfth grades. While 59 percent of the migrant students pass the mathematics CAHSEE in the tenth grade, the rate is 16 percentage points lower than that of the statewide student population. The 16 percent disparity in the tenth grade increases to nearly 18 percent by the twelfth grade. Overall, the percentage of migrant students who are passing the mathematics portion of the CAHSEE is 45 percent lower than the rate for the statewide student population (31.9 percent compared with 58.7 percent).

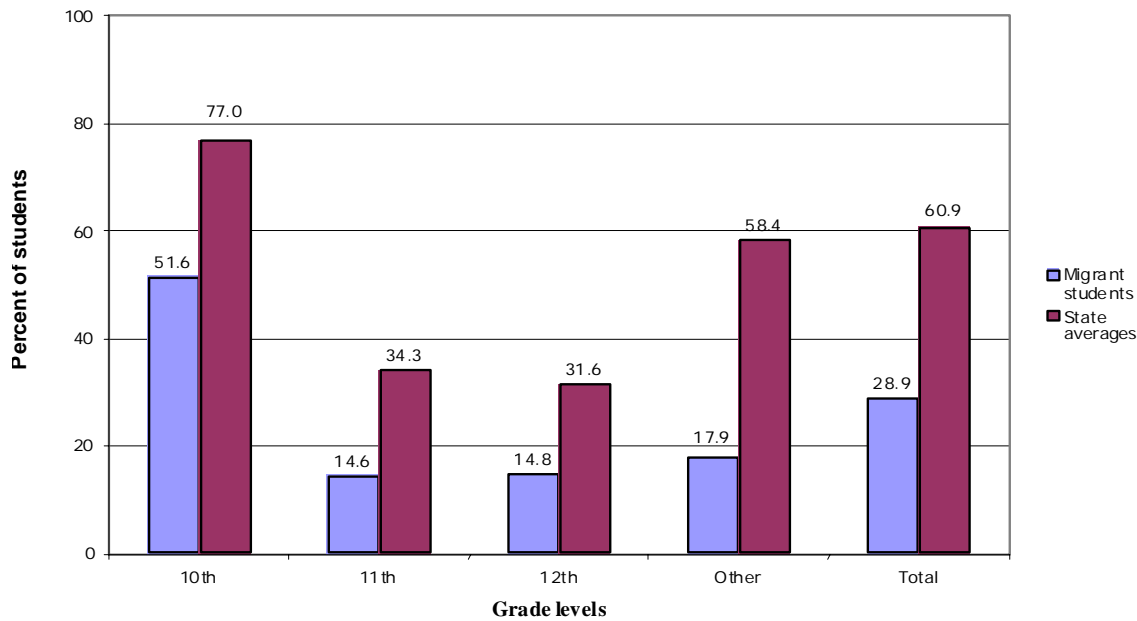
Figure 3.2. Percentages of Students Passing the CAHSEE Math, 2005-06



Source: California Department of Education, California High School Exit Examination.
<http://cahsee.cde.ca.gov>.

The pattern evident in the rates for passing the CAHSEE mathematics portion is also evident in the English–language arts part of the CAHSEE. Figure 3.3, “Percentages of Students Passing the CAHSEE English–Language Arts, 2005-06,” shows that in the tenth grade, only 51.6 percent of migrant students pass the English–language arts subtest compared with 77 percent of the statewide student population. Overall, the passing rate for migrant student on the English–language arts subtest is 32 percent lower than the rate for the student population at large.

Figure 3.3. Percentages of Students Passing the CAHSEE English–Language Arts, 2005-06

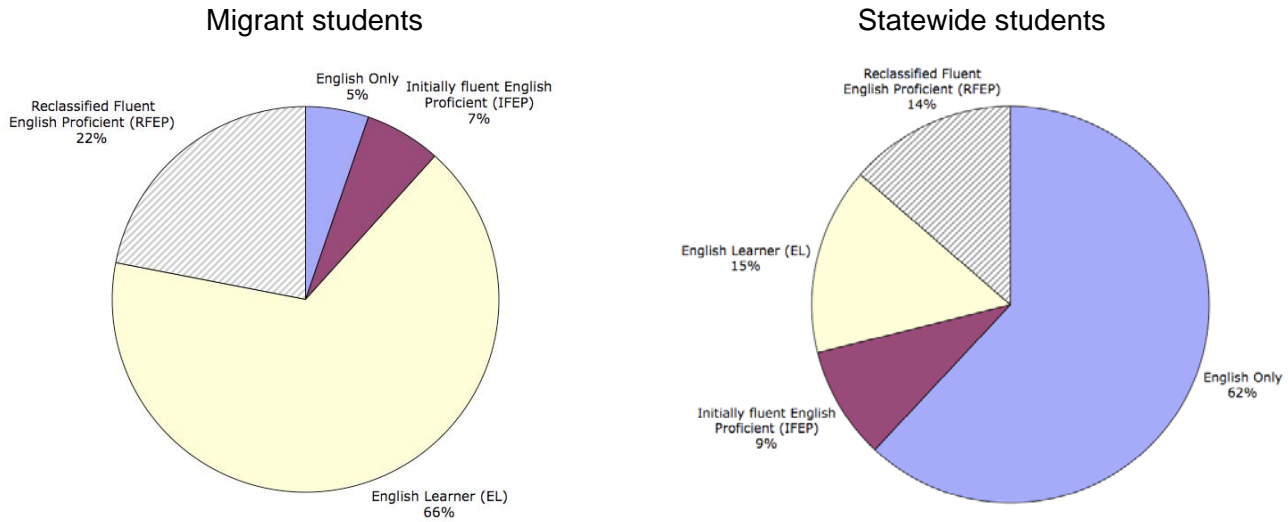


Source: California Department of Education, California High School Exit Examination. <http://cahsee.cde.ca.gov>.

Further Findings

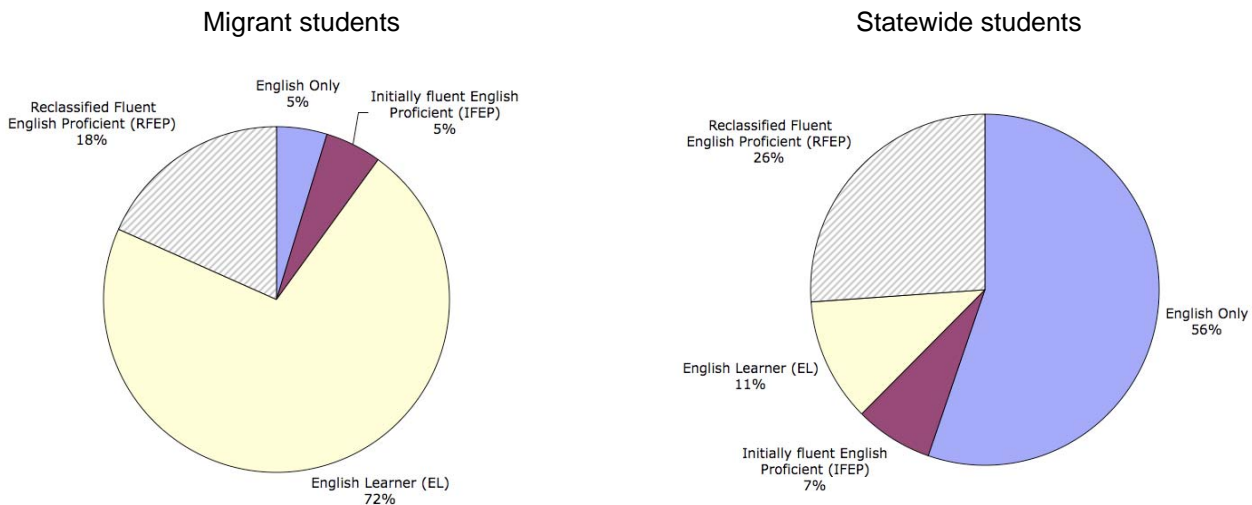
The differences in passing rates may also be attributed to characteristics other than the mobility of migrant students. Sixty-six percent of migrant students who took the mathematics portion were English learners compared with only 15 percent of the students statewide (see figure 3.4, “Language Designation for Students Taking the CAHSEE Mathematics Subtest”). Similarly, 72 percent of migrant students taking the English–language arts subtest were English learners compared with only 11 percent of the students statewide (see figure 3.5, “Language Designation for Students Taking the CAHSEE English–Language Arts Subtest”).

Figure 3.4. Language Designations for Students Taking the CAHSEE Mathematics Subtest



Source: Standards and Assessment Division, California Department of Education.
<http://dq.cde.ca.gov/dataquest>.

Figure 3.5. Language Designations for Students Taking the CAHSEE English–Language Arts Subtest



Source: Standards and Assessment Division, California Department of Education.
<http://dq.cde.ca.gov/dataquest>.

As shown in table 3.11, “Percentages of Students Passing the CAHSEE, by Language Designation,” assessing the performance of students by language designation points to marked differences in the performances of subgroups. While English learners in both the migrant and statewide student populations score the lowest, migrant RFEP students

outperform all other designations and approach a 60 percent pass rate in both portions of the exam.

Table 3.11. Percentages of Students Passing the CAHSEE, by Language Designation

	Mathematics		English–language arts	
	Migrant students	Statewide students	Migrant students	Statewide students
English only	37.9	63.3	37.8	70.0
Initially fluent English proficient (IFEP)	49.9	70.7	50.9	76.5
English learners (ELs)	22.5	35.4	18.4	28.5
Reclassified fluent English proficient (RFEP)	59.4	75.3	58.3	82.3

Source: California Department of Education, DataQuest. <http://data1.cde.ca.gov/dataquest>.

Needs Statements

From the various data the CDE collected, the Management Team gained a deeper understanding of CAHSEE passing rates. As a result, the High School Work Group developed the following needs statements:

1. The overall passing rate for migrant students on the CAHSEE should increase to the current passing rate for all students, from 28.9 percent to 60.9 percent in English-language arts and from 39.1 percent to 58.7 percent in mathematics.
2. CAHSEE passing rates for migrant students at each specific high school grade level should increase to the corresponding passing rate for all students as indicated below:

Tenth grade: 51.6 percent to 77.0 percent
 Eleventh grade: 14.6 percent to 34.3 percent
 Twelfth grade: 14.8 percent to 31.6 percent

Initial Solutions

MEPs should focus efforts to help migrant students to pass both sections of the CAHSEE on the first attempt by:

1. Facilitating academic support services for migrant students
2. Ensuring that migrant students have the opportunity to take CAHSEE test preparation as early as the ninth grade
3. Identifying migrant students who are classified as English learners to advocate that these students be enrolled in available academic support services to help them in passing the CAHSEE

4. Ensuring that workshops specifically discussing the CAHSEE are offered to migrant parents

Areas of Intervention

The concerns in this section are organized into four areas: (1) educational support from the home; (2) health needs; (3) access to supplementary services; and (4) engagement in the school community. These four areas are labeled “areas of intervention” because they have historically been key areas in which the migrant program has provided support to students and families. Unfortunately, the data reported in this section met some, but not all, of the criteria for data quality, and inferences from the data are necessarily tentative. Nevertheless, these data provide some insights into the needs of migrant students and their families. As statewide data collection in migrant education continues to improve, these needs will be better understood, and measurable gaps will be better documented. Recommendations to strengthen the quality of the data gathered in these areas are discussed in Chapter 5.

Educational Support from the Home

It is widely recognized that parent involvement in children’s education plays an important role in students’ success. Both research and the experience of migrant staff and families demonstrate that when parents are well-informed and active in assisting at home, their children are more likely to reach higher academic levels.

The Readiness, Reading, and Mathematics CNA Work Groups each raised concerns about educational support from the home. Each group developed one or more concern statements, some of which were investigated through two parent questionnaires. One questionnaire was administered through interviews with parents whose children were participating in MEES preschool programs. More than 1,900 questionnaires were returned from 20 regions. The second questionnaire was administered to parents with children in preschool through the twelfth grade. Those parents attended local advisory committee meetings or parent trainings sponsored by the migrant program. More than 500 parents in five regions completed the second questionnaire.

Although the questionnaires were designed with suggestions from experienced professionals, they were not field-tested for validity or reliability. In addition, time and resources were limited, so it was not possible to train the staff who administered the questionnaires to ensure a consistent process. Nevertheless, the results provide some insights into migrant parents’ behaviors and views. Detailed results for each of the concern statements are described in the next section. Some results are reported more than once, because more than one work group used a given question to address its concern. There are no data for a comparison group of nonmigrant parents; and the committee was unable to find existing standards for specific aspects of parent support, so each work group determined appropriate targets for each aspect of parental support.

Research indicates that parents can play a significant role in developing their children’s school readiness skills. Children who come from homes where parents provide

supportive environments during early childhood tend to be more prepared for the demands of literacy and mathematics in kindergarten.

Concern Statement

Some parents of migrant students may not provide educational support because (1) they do not realize the importance of their personal contribution to their children's scholastic development; and (2) they lack an understanding of the most helpful types of activities to prepare their children for formal schooling.

These findings led the CNA participants to advance several concerns, which were combined into the following concern statement:

Parents of migrant preschool students are not providing activities and experiences at home that prepare their children for the demands of literacy and mathematics in kindergarten.

The CNA Advisory Committee and the School Readiness Work Group were concerned that:

1. Prekindergarten (pre-K) migrant students do not demonstrate literacy readiness (in the home language) when they enroll in kindergarten.
2. Migrant families of pre-K students lack reading materials in their homes.
3. Parents of pre-K migrant students do not interact with their children in ways that are likely to develop their children's mathematics readiness skills.

Needs Indicator

Initially, the CNA participants wanted to find out if there were differences between the home practices of new migrant parents (families with only the first child in the first year of a migrant education preschool program) and parents of nonmigrant preschool students in their first year of preschool. However, a survey of possible data sources indicated that no data were available to answer this question directly.

Therefore, it was decided to develop and administer a questionnaire to the parents of migrant preschoolers. The questionnaire's purpose would be to determine the percentage of migrant parents who report home behaviors conducive to developing school readiness skills in their children. Those findings would be compared with a standard implying that most or all parents should display those behaviors.

Data Collection

A parent questionnaire was developed with eight items that addressed home activities related to school readiness. The questionnaire was administered in the migrant education regions that participate in the MEES program. The numbers and percentages of the responses for each region appear in table 3.12, "MEES Questionnaires Administered by Region."

This questionnaire was administered to a sample of migrant parents and guardians with one or more children participating in a MEES program in October 2006. The MEES staff members read the questions to the interviewees. The staff person conducted the interview in English or Spanish according to the interviewee's language preference.

Table 3.12. MEES Questionnaire Administered by Region

Region	Responses (number)	Responses (percent)
2	573	29.7
3	89	4.6
4	228	11.8
5	110	5.7
6	82	4.2
7	28	1.4
8	36	1.9
9	142	7.3
10	55	2.8
11	37	1.9
12	19	1.0
13	44	2.3
14	26	1.3
16	156	8.1
17	100	5.2
18	58	3.0
19	25	1.3
21	27	1.4
22	43	2.2
23	54	2.8
Total	1,932	100

The questionnaire's results are shown in the "MEES Parent Questionnaire." The number and percentage of respondents are noted. (Less than 1 percent of the interviewees reported a home language other than English or Spanish.)

MEES Parent Questionnaire

1. From the following list, indicate each type of reading material in English or Spanish or both languages (or another language) that you have had in your home sometime during the *most recent month*. (Check all items that apply.)

Reading materials	English	Spanish	Other language (Indicate which one.)
Newspapers	477 (24.7%)	590 (30.5%)	28 (1.4%)
Magazines	391 (20.2%)	785 (40.6%)	11 (0.6%)
Books for adults	221 (11.4%)	467 (24.2%)	11 (0.6%)
Books for children	1,087 (56.3%)	1472 (76.2%)	14 (0.7%)
Other materials	37 (1.9%)	54 (2.8%)	94 (4.9%)

2. During a *typical week*, how many times do you or another adult read aloud to your preschool child in English or Spanish or both languages (or another language) for 10 minutes or longer? Please select the most accurate response. (Check only one.)

Frequency of reading	English	Spanish	Other language (Indicate which one.)
More than three times	356 (18.4%)	747 (38.7%)	5 (0.3%)
Three times	109 (5.6%)	321 (16.6%)	1 (0.1%)
Two times	145 (7.5%)	370 (19.2%)	4 (0.2%)
One time	67 (3.5%)	213 (11.0%)	1 (0.1%)
Never	24 (1.2%)	43 (2.2%)	8 (0.4%)

3. During a *typical week*, how many times do you or another adult tell a story, sing, or recite a rhyme or poem in English or Spanish (or in another language) to your preschool child? (Check only one.)

Frequency of activity	English	Spanish	Other Language (Indicate which one.)
More than three times	157 (8.1%)	485 (25.1%)	21.1 (1.1%)
Three times	60 (3.1%)	236 (12.2%)	2 (0.1%)
Two times	72 (3.7%)	410 (21.2%)	6 (0.2%)
One time	56 (2.9%)	381 (19.7%)	4 (0.2%)
Never	70 (3.6%)	137 (7.1%)	15 (0.8%)

4. Do you or any other adult who lives in your home have a library card?

Yes	842 (44.6%)	No	1,046 (55.4%)
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5. A. Is there a computer in your home?

Yes	644 (34.0%)	No	1,250 (66.0%)
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B. If yes, is it connected to the Internet?

Yes	(337 (52.3%))	No	307 (47.7%)
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6. Is there a portable calculator in your home?

Yes	1,229 (65.1%)	No	658 (34.9%)
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7. Have you and/or someone else in the home taught your preschool child to count from one to ten?

Yes	1,763 (93.5%)	No	122 (6.5%)
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8. Check each activity that you and your preschool child did as a family during the past year.

Activities	Responses
Visited a zoo, amusement park, or public park	1,477 (76.4%)
Saw a movie at a theater	701 (36.3%)
Went to a museum or historical landmark	301 (15.6%)
Patronized a library or bookstore	801 (41.5%)
Participated in or viewed a sports activity	894 (46.3%)
Took a picnic, hike in the mountains, or trip to the beach	1,119 (57.9%)
Attended a social, religious, or civic organization event	1,354 (70.1%)

Needs Statements

1. The percentage of migrant families in which an adult reads to the preschool children at least twice weekly should increase to or be maintained at 75 percent of the population.
2. As an interim goal, the percentage of MEES program families connected to the Internet should increase from 17 percent to 34 percent (the rate at which migrant families with K–12 students said they were connected to the Internet, as shown in the second parent questionnaire). A higher-level goal is to increase the percentage of migrant families connected to the Internet to the same percentage as that of mainstream families.

Initial Solutions

The MEES program should do the following:

1. Provide a supplementary family literacy component for migrant students in non-MEES program preschools.

2. Develop a technology component that provides information and resources for obtaining computers and connecting them to the Internet; other technology resources, such as children's learning laptops; access to computer labs in schools and adult education programs during family literacy nights; and parent education classes offering computer literacy for parents and children.
3. Strengthen the program's home and school language and mathematics development components to include activities recommended in research to significantly improve the mathematics performance of students. The program should periodically monitor the percentage of families that implement these activities.
4. Provide staff development training to providers of preschool services on research-based instructional strategies related to language development and mathematics for migrant students, including English learners.
5. Establish an initiative to encourage migrant parents to enroll their children in preschool programs.

Parental Support of Literacy Development

Research conducted over the past three decades provides a convincing case that when parents actively support children's literacy development in the home, the children demonstrate higher literacy achievement at school.

Concern Statement

The CNA participants wanted to find out the extent to which migrant parents were interacting with their children in specific ways that are related to improved literacy outcomes. The concern statement for this item follows:

Migrant parents are not modeling reading to their children at home.

Data Collection

The Management Team reviewed parent questionnaires and program evaluation data from a number of sources, such as the Healthy Kids Program, Migrant Education Even Start, and regional MEPs. In most cases the data collected on parent behaviors were not conducted in a manner that would allow disaggregation of the migrant cohorts included in the study. In other cases, such as the regional MEP sources, the data were not comprehensive or complete.

The Management Team decided to include a series of items in two parent questionnaires. One questionnaire was administered to approximately 2,000 parents whose children were participating in the MEES preschool program (see the preceding concern statement for details).

Data Summary

The questionnaire was administered to families in the five regions listed in table 3.13, "Regional Distribution of the K–12 Parent Questionnaire." A total of 539 families

completed the questionnaire, but for the purposes of the analysis, the responses from families who have children exclusively in K–12 (but not in preschool) were used. This subgroup numbered 333 respondents. Table 3.14, “Languages of Administration,” provides more information on the administration of the questionnaire.

Table 3.13. Regional Distribution of the K–12 Parent Questionnaire

Regions	Responses (number)	Responses (percent)
2	117	35.1
5	140	42.0
10	45	13.5
18	18	5.4
21	13	3.9
Total	333	100.0

Table 3.14. Languages of Administration

Languages	Responses (number)	Responses (percent)
English	11	3.3
Spanish	322	96.7
Total	333	100.0

The following section contains the results from both the preschool and K–12 parent questionnaires regarding support for reading in the home.

K–12 Parent Questionnaire

1. From the following list, indicate each type of reading material in English or Spanish or both (or another language) that you have had in your home during the *most recent month*. (Check all items that apply.)

Preschool/K–12 reading materials	English (percent)		Spanish (percent)		Other languages (percent)	
	Preschool	K–12	Preschool	K–12	Preschool	K–12
Newspapers	24.7	43.2	30.5	37.5	1.4	0.6
Magazines	20.2	39.6	40.6	43.2	0.6	0.3
Books for adults	11.4	22.8	24.2	29.1	0.6	0.9
Children’s literature	56.3	67.3	76.2	58.3	0.7	0.6
Other materials	1.9	4.2	2.8	6.0	4.9	0.3

Note: Of the preschool respondents 49 (2.5 percent) reported that there were no reading materials in the home.

2. During a *typical week*, how many times do you or another adult read aloud to your child in English or Spanish or both (or in another language) for 10 minutes or longer? Please select the most accurate response. (Check only one.)

Frequency of reading	English (percent)		Spanish (percent)		Other languages (percent)	
	Preschool	K–12	Preschool	K–12	Preschool	K–12
More than three times	24.0	27.3	55.3	35.1	0.4	0.6
One to two times	11.0	16.5	30.2	30.9	0.3	0.3
Never	1.2	6.3	2.2	6.6	0.4	0.6

Item 3, which follows, was included on the preschool questionnaire but not on the K–12 parent questionnaire. Instead, those parents were asked in item 4 about helping their children with homework assignments.

3. During a *typical week*, how many times do you or another adult tell a story, sing, recite a rhyme or poem to your preschool child? (Check only one item.)

Frequency of storytelling (MEES)	English (percent)	Spanish (percent)	Other languages (percent)
More than three times	18.4	38.7	0.3
Three times	5.6	16.6	0.1
Two times	7.5	19.2	0.2
One time	3.5	11.0	0.1
Never	1.2	2.2	0.4

4. Please indicate the amount of time you spend weekly helping your child with homework?

Number of hours of assistance, K–12 families	Percent
More than one hour weekly	57.8
One hour weekly	18.8
Less than one hour weekly	16.9
No assistance	6.8
Note: 67 no responses	

Note: No response in 67 cases.

In addition, both questionnaires contain items regarding library cards and home computers. The data (in percent) from the preschool questionnaire are presented first, followed by the data from the K–12 questionnaire.

Do you or any other adult who lives in the home have a library card?

	Preschool	K–12		Preschool	K–12
Yes	45.6	57.4	No	55.4	39.3

Is there a computer in your home?

	Preschool	K–12		Preschool	K–12
Yes	34.0	55.3	No	66.0	42.0

If yes, is it connected to the Internet?

	Preschool	K–12		Preschool	K–12
Yes	52.3	64.1	No	45.6	34.2

Needs Statements

1. The percentage of migrant families who have children’s literature in the home should increase from 76 percent of preschool families and 67 percent of K–12 families to 90 percent of all families.
2. The percentage of K–12 migrant parents and guardians who help their children with homework (or at the high school level, monitor completion of homework) should increase from 66 percent to 85 percent, the level at which MEES parents and guardians read to their children at home.
3. The percentage of MEES families and K–12 migrant families that have library cards should increase from 45 and 57 percent, respectively, to 80 percent.
4. The percentage of MEES families and K–12 migrant families that have a home computer should increase from 31 and 55 percent, respectively, the rate at which the mainstream population in the United States owns a computer.
5. The percentage of MEES and K–12 migrant families that have a computer in the home and are connected to the Internet should increase from 52 and 64 percent, respectively, to 90 percent.

Initial Solutions

The MEP should consider the following:

1. A campaign to increase the number of preschool and K–12 families who help their children with literacy development and other schoolwork
2. A campaign to promote the acquisition of a library card by 90 percent of migrant families
3. A program to promote the distribution of excess computers from businesses to migrant families so that more than 90 percent of families own a home computer
4. A means for informing migrant families about offers of free Internet access and contacting Internet service providers to get free or reduced-price connections for migrant families. A reasonable program goal is to provide 95 percent of migrant families with a home computer with access to the Internet.

Socioeducational Experiences Beyond the School Day

Because most migrant students come from low socioeconomic and non-English speaking backgrounds, the CNA participants were interested in the types of educationally related experiences that these students have outside of school.

Concern Statement

The CNA participants were especially concerned about priority-for-services (PFS) students, who frequently move from one community to another and are underachieving in school. The educators felt that in addition to the variables mentioned earlier, those students might have even fewer enrichment opportunities than other migrant students do and certainly have fewer opportunities than mainstream students do.

The following concern statement was developed:

Migrant PFS students have limited educational experiences beyond the school day.

Needs Indicator

Although the CNA participants wished to focus on the out-of-school experiences of PFS students, it became clear that to sample this group would be difficult. The MEP regional offices have not identified and reported on all PFS students.

Using an alternative approach, the CNA could identify a sample of migrant students, who on the basis of the most recent administration of the CSTs, scored below basic on reading, language arts, mathematics, or any combination of those subjects. The sample could be disaggregated for migrant students who had a qualifying move in the same school year. However, the Management Team decided not to pursue that approach because of the time and complications involved in developing this sample and the possibility that the eventual pool of students (taking into account the number of families with PFS students who respond to the survey) would be too small to conduct an analysis.

Data Collection

The CNA participants decided to sample the general migrant parent population by including an item on both parent questionnaires (see the details provided earlier). This item asked whether any children in the family participated in a given list of activities.

Data Summary

Table 3.15, “Activities Beyond the School Day,” contains the responses for both the preschool and K–12 parent questionnaires regarding those activities. The data from the preschool questionnaire are presented first, followed by the data from the K–12 questionnaire.

Table 3.15. Activities Beyond the School Day

Do *any* of the children in your family participate in any of following activities?

Types of activities	Preschool	K–12
Boys or girls associations, such as scouting, Campfire, 4-H	70 (3.6%)	21 (6.3%)
Sports leagues, such as Little League, soccer, etc.	361 (18.6%)	109 (32.7%)
After-school activity or club	233 (12.1%)	63 (18.9%)
Youth church group	235 (12.2%)	65 (19.5%)
Ethnic, cultural, or social groups, such as a Ballet Folklórico	85 (4.4%)	24 (7.2%)
Other activities (Please describe.)	43 (2.2%)	14 (4.2%)

Note: Number of responses per item: one or more = 361; two or more = 118; three or more = 42; four or more =15.

Migrant students are only modestly involved in activities beyond school. The most popular activity is sports, but even here, only 32.7 percent of K–12 students are involved. The percentage of involvement reported by preschool families is lower than that of K–12 families, although half of those families have a child old enough (enrolled in K–12) to participate in many of the activities listed in the survey.

Needs Statements

Since the CNA was unable to disaggregate the parent questionnaire data by non-PFS migrant students or to obtain data on nonmigrant students, there are no direct comparison groups for this item. No gap between the cohorts could be determined. However, since research indicates that students benefit in school from social and educational activities in the community, the percentage of migrant students who have no outside activity is indicative of students who are at an educational disadvantage.

Because of the extremely young age of preschool students, it might be expected that many children would not yet be participating in activities outside the home. And because the majority of the parents interviewed at the K–12 level were involved in organized MEP activities, such as a parent advisory committee, the participation rate of children from those families would be assumed to be higher than the average participation rate of mainstream migrant families. Consequently, without another comparison group for analysis, the Management Team concluded that the results from the K–12 parent questionnaire for this item would serve as the standard for this item. K–12 students in families that have a preschool child and students in K–12 migrant families that do not participate in MEP adult activities should strive to have the same participation rates as those of the K–12 sample of migrant families that have one or more parents involved in MEP adult activities.

1. On the basis of the notion that a majority of migrant students should be involved in at least one sociocultural activity beyond the school, the percentage of migrant students participating should increase from 32 to 75 percent.
2. Since social and cultural activities are highly correlated with improved scholastic performance, the percentage of migrant students involved in at least two community activities should increase from approximately 5 percent to 50 percent.

Initial Solutions

The MEP should consider facilitating the involvement of migrant students in community activities by:

1. Cooperating with organizations, such as Boy and Girl Scouts and 4-H, and other groups to recruit migrant students
2. Cosponsoring groups in areas with heavy migrant populations
3. Helping schools that enroll significant numbers of migrant students to establish and maintain extracurricular organizations
4. Serving as a clearinghouse to provide migrant families with information regarding local organizations

Parents' Awareness of Mathematics Issues

The Mathematics Work Group discussed ways that parents' awareness of mathematics issues can contribute to improving student performance in mathematics. Parents often do not recognize the mathematics they use in conducting household activities, such as shopping, cooking, or gardening. The adults may not feel competent to help their elementary-age children with mathematics homework, although they may be using mathematics skills every day in their work and family life. In addition, parents may not place as much importance on their children's mathematics achievement as they do on other subject areas, such as reading and writing.

At the secondary school level, migrant students are vulnerable to being placed in mathematics courses based on criteria other than their skill levels. Most schools typically have more than one series of mathematics courses, and some series are designed to prepare students for entrance to college, and others are not. Migrant students may not be properly assessed if they enter a school partway through the year or transfer from another district, and records of their previous courses are not available. The basis for the placement of migrant students may simply be the availability of space in a classroom, without sufficient attention to the students' needs or skill levels.

Student placement in mathematics classes may also depend on whether parents and counselors are serving as advocates for that student. Whether parents can be advocates for their children may depend on how well-informed they are about which mathematics classes meet college entrance requirements and on how the school determines the students' placement.

Concern Statement

The preceding issues were summarized in the following concern statement:

Some migrant families are not aware of:

1. The mathematical thinking embedded in their daily lives that can help their children succeed in mathematics education
2. The importance of having their children study mathematics and learn algebra to achieve academic progress
3. The mathematics classes that meet college entrance requirements
4. The basis for placing their children into mathematics classes (e.g., those below their skill levels)
5. Ways to determine whether their children are placed in college preparatory classes

Needs Indicators

The Management Team decided that a questionnaire distributed to parents would be the most effective way to determine the awareness and understanding of migrant parents regarding the issues described previously. Several questions were designed to find out which resources families had at home, how comfortable they were in helping their elementary school children with mathematics homework, and how aware they were of mathematics skills used in day-to-day activities. The following questions were asked:

1. Is there a computer in your home? If so, is it connected to the Internet? Is there a calculator in your home?
2. How comfortable do you feel about helping your elementary school children with mathematics homework? (Parents were asked to circle their comfort level on a four-point scale.)
3. Why do parents feel uncomfortable in helping with mathematics homework?
4. Which activities typically involve the use of mathematics skills?

The last question was asked on the basis of reports from parent educators that parents often are not aware of the mathematics skills they use regularly. Additional questions were asked of parents of middle and high school students to determine how well-informed they were about student placement in mathematics classes and the importance of algebra for completing high school and entering college. Parents were also asked how important it is that their children attend college.

Data Collection

Data were gathered through two questionnaires: one administered to parents of children in the MEES preschool program and the other to parents of migrant children in K–12. (For details on the regional distribution of responses and the language used in administering the questionnaires, see tables 3.12, 3.13, and 3.14.)

Data Summary

Responses to the K–12 parent questionnaire are shown as follows:

1. Is there a computer in your home?

Yes	184 (55.3%)	No	140 (42.0%)
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Note: No response in 9 cases.

2. If yes, is it connected to the Internet?

Yes	118 (64.1%)	No	63 (34.2%)
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Note: No response in 3 cases.

Responses to the MEES parent questionnaire are as follows:

1. Is there a computer in your home?

Yes	644 (34.0%)	No	(Skip to question 6) 1,250 (66.0%)
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Note: No response in 38 cases.

2. If yes, is it connected to the Internet?

Yes	337 (52.3%)	No	294 (45.6%)
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Note: No response in 13 cases.

The preceding data indicate that a majority of the families responding to the K–12 questionnaire have a computer at home (55 percent), and of those families 64 percent are connected to the Internet. Respondents to the MEES questionnaire indicated that only 34 percent have a computer at home, and of those families 52 percent are connected to the Internet.

K–12 parents answered as follows:

Is there a portable calculator in your home?

Yes	273 (82.0%)	No	51 (15.3%)
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Note: No response in 9 cases.

MEES parents answered as follows:

Is there a portable calculator in your home?

Yes	1,229 (65.1%)	No	658 (34.8%)
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Note: No response in 45 cases.

The preceding data indicate that a majority of parents responding to both questionnaires said they have a calculator at home, while the percentage of K–12 parents who have a

calculator is substantially higher than that for the MEES parents (82 percent compared with 65 percent, respectively).

Have you or someone else in the home taught your preschool child to count from one to ten?

Yes	1,763 (93.5%)	No	122 (6.5%)
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Note: No response in 47 cases.

These data indicate that the overwhelming majority (93 percent) of MEES parents are teaching their children to count from one to ten before they enter kindergarten.

Parental help with mathematics homework

How comfortable do you feel about helping your elementary school children with mathematics homework? (Check the most accurate answer.)

Very uncomfortable	Somewhat uncomfortable	Somewhat comfortable	Very comfortable
31 (11.6%)	59 (22.1%)	60 (22.5%)	116 (43.4%)

Note: No response in 66 cases.

If you checked “somewhat uncomfortable” or “very uncomfortable,” which of the following reasons apply? (Check all that apply.)

Reasons	Responses
I do not understand the mathematics my child is doing.	73 (81.1%)
I cannot communicate with the teacher (e.g., language barrier).	48 (53.3%)
I do not feel comfortable talking with the teacher.	12 (13.3%)
I do not have time to help my child.	8 (8.8%)
Other (Please describe.)	10 (11.1%)

When K–12 parents were asked in the preceding questions about how comfortable they feel helping their elementary school children with mathematics homework, 66 percent said they felt somewhat or very comfortable. Of the 34 percent who felt somewhat or very uncomfortable about helping their children with mathematics homework, the reasons given most often were “I do not understand the mathematics my child is doing” (81.1 percent), and “I cannot communicate with the teacher, e.g., language barrier” (53.3 percent).

The following question was designed to determine how aware parents are of the mathematics skills they use daily,

In your opinion, which of the following activities involve the use of mathematics skills? (Check all that apply.)

Activities	Responses
Cooking	188 (56.5%)
Washing clothes	164 (49.2%)
Shopping	265 (79.6%)
Paying bills	261 (78.4%)
Mowing the lawn	97 (29.1%)

Note: Number of responses per item: one or more = 265; two or more = 241; three or more = 162; four or more = 133; five = 82.

Note: No response in two cases.

A great majority of the parents said that shopping and paying bills required mathematics (79.6 percent and 78.4 percent, respectively) A smaller number—but still close to half—said that mathematical skills were used in cooking meals and washing clothes (56.5 percent and 49. percent, respectively). Only 29.1 percent chose mowing the lawn. A majority chose at least two items; almost half of the 333 respondents chose at least three items on the list.

The following two questions were asked of K–12 parents who had students in middle or high school to determine how well-informed they were about whether their child was taking college preparatory mathematics classes and whether they knew which factors the school used to determine their child’s placement in mathematics classes.

Have you been informed by the school about whether your child is taking the mathematics classes that meet the requirements for admission to a four-year college?

Yes	159 (60.9%)	No	102 (39.1%)
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Note: No response in 72 cases.

Which factors does the school use to determine the placement of students in mathematics classes? (Check all that apply.)

Criteria	Responses
Achievement tests	149 (45.3%)
Previous mathematics grades	83 (25.2%)
Aptitude tests	49 (14.9%)
Teachers’ recommendations	62 (18.8%)
Don’t know	72 (21.9%)

Note: Number of responses per item: one or more = 149; two or more = 63; three or more = 37; four = 27.

Note: Four received no response.

Sixty-one percent of the migrant parents reported being informed by their child’s school regarding mathematics classes meeting requirements for college eligibility. However, if

the 72 nonresponses are included and counted as no, then only 48 percent of the parents said they had been informed. Twenty-two percent of the parents did not know how their children were placed in mathematics classes, and less than half identified achievement tests as a factor.

The following questions were asked of K–12 parents who had students in middle or high school to determine the importance they place on their children’s enrollment in algebra in high school and attendance in college:

On a scale of 1 to 5, with 5 being the most important, how important is it to you that, while enrolled in high school, your children take an algebra class? Circle only one answer.

1	2	3	4	5
4 (1.6%)	1 (0.4%)	2 (0.8%)	14 (5.6%)	230 (91.3%)

Note: No response in 82 cases.

On a scale of 1 to 5, with 5 being the most important, how important is it to you that your children attend college? Circle only one answer.

1	2	3	4	5
3 (1.1%)	0	0	5 (1.8%)	270 (96.8%)

Note: No response in 54 cases.

These data indicate that parents’ responses to the questionnaire overwhelmingly place a high value on their children’s enrollment in algebra in high school (97 percent answered 4 or 5 on a 5-point scale) and on their children’s attending college (99 percent answered 4 or 5 on a 5-point scale). However, 25 percent of the total did not respond to the question about the importance of their child taking an algebra class in high school, and 16 percent did not respond to the question about the importance of their child attending college. Those percentages may indicate a sizeable number who are not sure about these questions.

Needs Statements

A comparison group could not be found to determine whether nonmigrant parents would respond similarly. As such, the needs statements are based on data obtained from the parent questionnaires.

1. The percentage of migrant families that have a computer with Internet access should increase from 18 percent for MEES parents to the percentage for the total population in California.
2. The percentage of migrant parents who feel comfortable helping their child with elementary mathematics homework should increase from 66 percent to 80 percent.
3. The percentage of migrant parents who do not know how their child is placed in high school mathematics classes should decrease from 22 percent to 10 percent.

Initial Solutions

Advisory Committee members made the following suggestions to strengthen MEP parent activities:

1. Parent education activities should maintain and strengthen home and school connections. Parents need information and support to:
 - Help their children with mathematics homework.
 - Discuss their children's mathematics homework with their children's teachers.
 - Understand whether their children are in college preparatory mathematics classes.
 - Understand how their children are placed in mathematics classes.
 - Be advocates for their children.
2. Parent education should be more available and effective and have the following characteristics:
 - Be relevant to the lives of migrant families.
 - Include modeling and guided practice, especially with the use of new tools or technology or both.
 - Create safe environments that encourage risk taking.
 - Honor and build on family language and knowledge.
 - Connect mathematics to community culture.
3. During summer courses for migrant students, material in the regular curriculum should be taught to prepare students for instruction in the fall.
4. Districts should provide targeted counseling to migrant students and educate district staff about the barriers facing those students and how to be advocates for them.

Unmet Health Needs

This section highlights the findings from the concern statements for unmet health needs. Each work group developed a concern statement focused on both physical and dental health. The Management Team was given the task of finding supporting data from many sources; however, none of those sources contained a migrant student identifier or an effective means by which to identify migrant students. Given the lack of optimal data, the Management Team developed two parent questionnaires that were administered to parents of MEES students and to parents of K–12 students.

The data collected for these concern statements have limitations. The data were collected from opportunistic samples of parents. Both questionnaires were administered only during October 2006. Moreover, parents surveyed were only those who were visited during that month by an outreach worker or who attended an MEP regional event during this same period. In addition, the Management Team did not thoroughly train the staff who administered the survey, and the data collection's reliability needs to be considered from the findings. Lastly, the Management Team did not pilot test the

instrument for validity, a critical step if decisions are to be based on scientifically sound findings.

In acknowledging the data's shortcoming, the Management Team decided that more research could provide insight into the importance of the findings. The additional literature review highlights some key topics to be addressed. This discussion appears in "Research on the Unmet Health Needs of Migrant Children" in Chapter 4.

Unmet Health Needs of Preschool Migrant Children

Migrant children cannot fully participate in and benefit from preschool if they are not healthy. Migrant students are thought to be at risk for health problems because many of these children come from homes with (1) limited financial resources; (2) low rates of health insurance; (3) a minority language and culture; and (4) immigrant (including undocumented) status. The fact that migrant families move periodically from one community to another implies that whatever health services students receive can be interrupted, abbreviated, or disjointed.

Concern Statement

Even though most migrant education regional offices provide health services assistance as one of the top priorities, the School Readiness Work Group believes that data on this issue should (1) reveal the prevalence of health problems among migrant children; and (2) provide information on current practices. This concern was raised by all the work groups and the Advisory Committee and was eventually expressed in the context of school readiness as:

Migrant preschool students have unmet health needs that may impede academic achievement.

Needs Indicator

One of the best sources of data on the health status of public school students is the California Healthy Kids Survey. Unfortunately, these data are not currently disaggregated for migrant students. A survey of MEP regional offices indicates that while many regions collect some information on health issues, none of them have a systemic, fully operating data collection process for their migrant populations.

Since the CNA participants believe that all migrant students should be healthy enough to attend school and take full advantage of educational opportunities, the standard established as a needs indicator for this item is zero. No migrant student should suffer from an unmet health need.

Consequently, the Management Team devised a data collection plan that focused on a questionnaire for migrant parents of preschool and school-aged children. An item on unmet health needs was included.

Data Collection

Copies of the parent questionnaire were distributed to MEES coordinators. To standardize the administration of the preschool parent questionnaire, MEES outreach workers received written instructions. The workers were to administer the questionnaire when conducting a home visit or meeting with parents. They were also discouraged from going out of their way to interview parents but instead to simply include the questionnaire with other typical activities conducted with parents of preschool-aged children.

Completed questionnaires were returned to WestEd where they were hand-entered into the Statistical Package for the Social Sciences (SPSS) for analysis.

Data Summary

Altogether, 1,936 parent questionnaires were returned. Shown below are the tallies of the responses for each item, with the corresponding percentage noted in parentheses.

Does your preschool child have any identified medical, dental, hearing, or vision condition that may affect his or her attendance or learning at school?

Yes	207 (10.9%)	No	1,685 (89.1%)
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Note: No response in 44 cases.

If the answer is yes, has your child received or is your child receiving adequate attention that has resolved or will likely resolve the issue?

Yes	140 (67.6%)	No	48 (23.2%)
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Note: No response in 19 cases.

If the answer is no, what are the primary reasons that the children have not received adequate treatment?

Reasons	Responses
We do not have sufficient financial resources.	21 (43.8%)
We do not have health care insurance.	9 (18.8%)
We lack transportation.	3 (6.3%)
We have not taken the child to a doctor.	10 (20.8%)

Of the MEES families, 10.9 percent reported that their preschool child has a medical need. Among those students, 32.4 percent have not received adequate health attention. The primary reasons reported for the lack of health care are financial. These results reflect that many families received adequate health assistance when the child was still an infant. Only 3.4 percent of the MEES students (32.4 percent of the 10.9 percent) have an unresolved health need. This very low number seems to imply that, for the most part, MEES families are obtaining needed health care for their children.

Needs Statement

Although many aspects of health are beyond its responsibility, the MEP has nonetheless assisted migrant families whenever possible. There are areas where the MEP can cultivate relationships with community-based organizations to help migrant families. As such, the needs statement is as follows:

The percentage of unmet health needs among all cohorts of migrant preschool students (MEES program participants and non-MEES program participants) should be reduced to and not exceed 3 percent.

Initial Solutions

The MEP should take the following actions:

1. Maintain the high level of health services provided to MEES participants and provide this same level of service to all migrant preschool children.
2. Establish a parallel procedure to collect information to determine the health and developmental needs of migrant preschool children when the certificate of enrollment is administered.
3. Develop an initiative to enroll all migrant families in health insurance plans through Healthy Families or other plans, such as Medi-Cal or Healthy Kids.
4. Provide migrant families with parent training on how to navigate the health care system and make full use of the health resources available to them. The training should include parent education on wellness, prevention, and self-care.
5. Refer all eligible newcomer migrant students to the Child Health and Disability Prevention (CHDP) Program for a physical examination and treatment for identified health problems (services provided by the CHDP Gateway Program).

Effects of Unmet Health Needs on School Achievement

Historically, the MEP in California has dedicated significant resources to providing health services to eligible migrant students and their families. CNA participants were concerned, however, that some migrant students may have unmet health needs that could negatively affect these students' school performance. This concern was raised by all the work groups.

Concern Statement

The Reading Work Group wanted not only to determine the number or proportion of migrant students that have unmet health needs but also to identify the primary reasons why families have been unable to obtain the necessary health services. The concern statement was expressed as follows:

Migrant students have unmet health needs that impede literacy achievement.

Needs Indicator

In California, the goal of the Healthy Kids initiative is that all children should be healthy enough to take advantage of and effectively participate in the learning opportunities at school. The CNA participants believe that no migrant student should suffer academically as a result of an unmet health need. Consequently, the standard for this item is to determine whether any migrant students have unmet health needs.

The CNA Advisory Committee studied the unmet health needs of preschool migrant students enrolled in the MEES program and K–12 migrant students. Preliminary results indicate that preschool migrant students are receiving health care at a higher proportion than K–12 migrant students are. It was determined that the low incidence of unmet health needs among MEES participants could serve as a reliable interim standard to be met by migrant students in K–12 and by preschool migrant students in non-MEES programs.

Data Collection

Initially, the Management Team thought that data on health screenings and follow-up could be obtained from the MEP regions. However, this was not the case for the following reasons:

1. Data are maintained on only a small proportion of the total population.
2. Data are supposed to be entered on all migrant students, but data are provided for only approximately 10 to 15 percent of them.
3. Data are not collected or entered into the regional database in ways that allow their retrieval for analysis, and the data are not representative of the migrant population being studied.

Consequently, the Management Team decided to include an item on health needs on a parent questionnaire. Initially, the questionnaire was administered to approximately 2,000 families with at least one child enrolled in the MEES program. Subsequently, a K–12 version of the parent questionnaire was developed and administered to 424 families in five regions. The responses from K–12 families, with children exclusively in K–12, were used. This subgroup numbered 333 respondents.

Data Summary

The results of the K–12 parent questionnaire are shown as follows. The number of responses is followed by the percentage.

Does your child have a health problem that might affect learning or attendance at school?

Yes	93 (27.9%)	No	235 (70.6%)
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Note: No response in five cases.

If the answer is yes, has your child received adequate health treatment that has or is likely to resolve the health problem?

Yes	56 (60.2%)	No	33 (35.5%)
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Note: No response in four cases.

If the preceding answers are no, please indicate all the reasons that apply.

Barriers	Responses
We do not have sufficient financial resources.	8 (3.4%)
We do not have health insurance.	8 (3.4%)
We do not have adequate transportation.	1 (1.3%)
We have not taken our child to the doctor.	9 (3.8%)
The doctors are unsure about which treatment is effective for this condition.	1 (0.4%)
Other reasons	

Note: Number of responses per item: one or more = 17; two or more = 12; three or more = 2; four = 1; 16 = no responses.

Approximately 28 percent of the migrant K–12 students and 11 percent of the MEES pupils have a serious health condition that could affect school achievement and attendance. Among the K–12 students, 35.5 percent of the students with a serious health condition are not receiving adequate follow-up treatment, compared with 32.4 percent of the preschool migrant students. In the vast majority of cases in which students are not receiving adequate follow-up health care, families report a lack of financial resources or no health insurance or both. Most, if not all, the responses for “other reasons” did not address the question.

The fact that almost 11 percent of MEES students and almost 30 percent of K–12 students have a serious health condition implies that the MEP should continue with health screening and follow-up activities. Approximately one-third of the migrant families at both the preschool and K–12 levels have been unable to obtain adequate health care for a child with a serious health need. This finding means that of the total migrant student population, approximately 10 percent of the K–12 students and 3.5 percent of the MEES students are not being provided with adequate health care. The K–12 rate is much greater than should be tolerated for any population of U.S. students.

Needs Statement

Because the findings suggest that school-aged migrant children suffer from ailments more than preschool-aged children do, the Management Team developed the following needs statement:

The percentage of K–12 students with an unmet health need should be reduced from 10 percent to approximately 3.5 percent, the rate of unmet health needs found among MEES children.

Initial Solutions

The MEP should make it a program priority to:

1. Build on current efforts to identify all preschool children and K–12 migrant students with unmet health needs. The MEP should do the following:
 - a. Improve coordination with school districts to access the health data of migrant students, especially the results from mandated vision and hearing screenings.
 - b. Survey parents regarding student health needs when the certificate of eligibility (COE) is transacted.
 - c. Streamline current MEP health referral procedures and provide improved outreach efforts to inform families and school staff about the referral procedures and the availability of local community health services and resources.
2. Design and implement an ongoing plan to increase the number of migrant families who have health insurance.
3. Establish a strategy to increase the number of migrant families enrolled in Healthy Families. (The issue of undocumented families may affect eligibility for services.)
4. Consider integrating of MEP health service efforts with local school wellness policies.
5. Consider covering the costs of the care in special cases in which health care resources from cooperating agencies are unavailable or have been exhausted.

Unmet Health Needs of Older Students

Migrant students' unmet health needs become more prominent as students get older because they are ineligible for health services and increased self-reliance is expected of older students. Also present in many adolescents is the need for psychosocial support and counseling, including suicide prevention and intervention.

Concern Statement

The High School Work Group expressed a concern that migrant students' health issues are overlooked, given that their age and immigration status may make them ineligible for some government-funded health insurance programs. As students become older, they may be expected to be more responsible for themselves and even for younger siblings, circumstances that may prevent some migrant students from accessing health services.

The High School Work Group stated the concern as follows:

Migrant students have unmet health needs that interfere with their academic success, such as psychosocial and chronic health conditions.

Needs Indicators

The High School Work Group and Management Team determined that questions on the California Healthy Kids Survey (CHKS) provide some indication of the unmet health and psychosocial needs. The High School Work Group stated the needs indicators as follows:

1. Determine the percentage of migrant students reporting unmet health needs on the CHKS.
2. Determine the percentage of migrant students reporting unmet psychosocial needs on the CHKS.

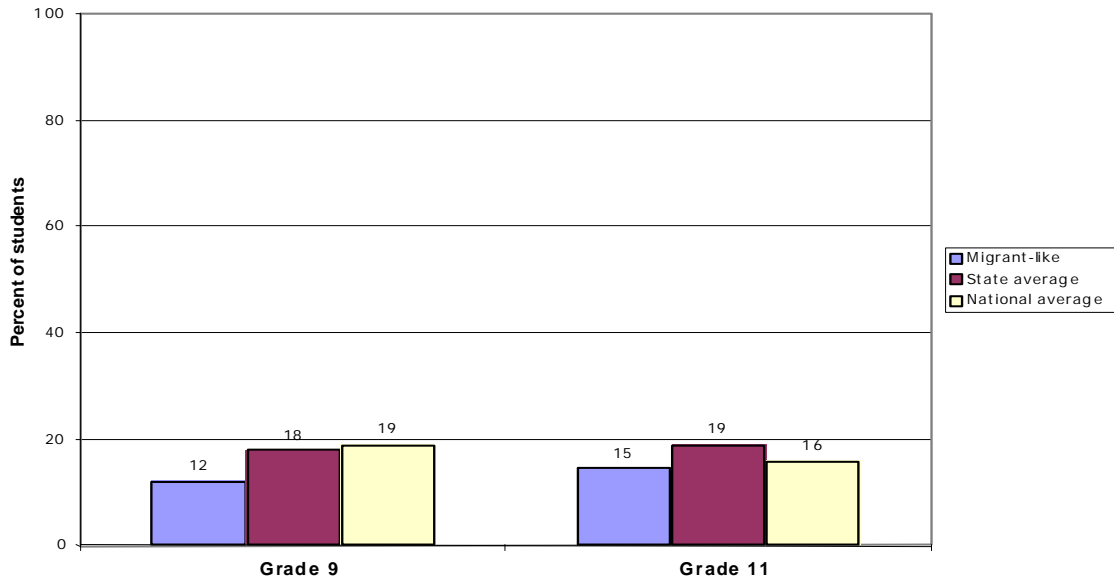
Data Collection

For the analysis of this item, data from the 2005 CHKS were used. Although the CHKS did not disaggregate students according to participation in the MEP, it did gather and disaggregate data according to the schools that were characterized by high enrollments of students with Spanish-speaking, transient, and lower socioeconomic status backgrounds. The Management Team considered these characteristics to be reasonable proxies for identification as a migrant student. National Data Files for 2005 are available at <http://www.cdc.gov/healthyyouth/yrbs/data/index.htm>.

Data Summary

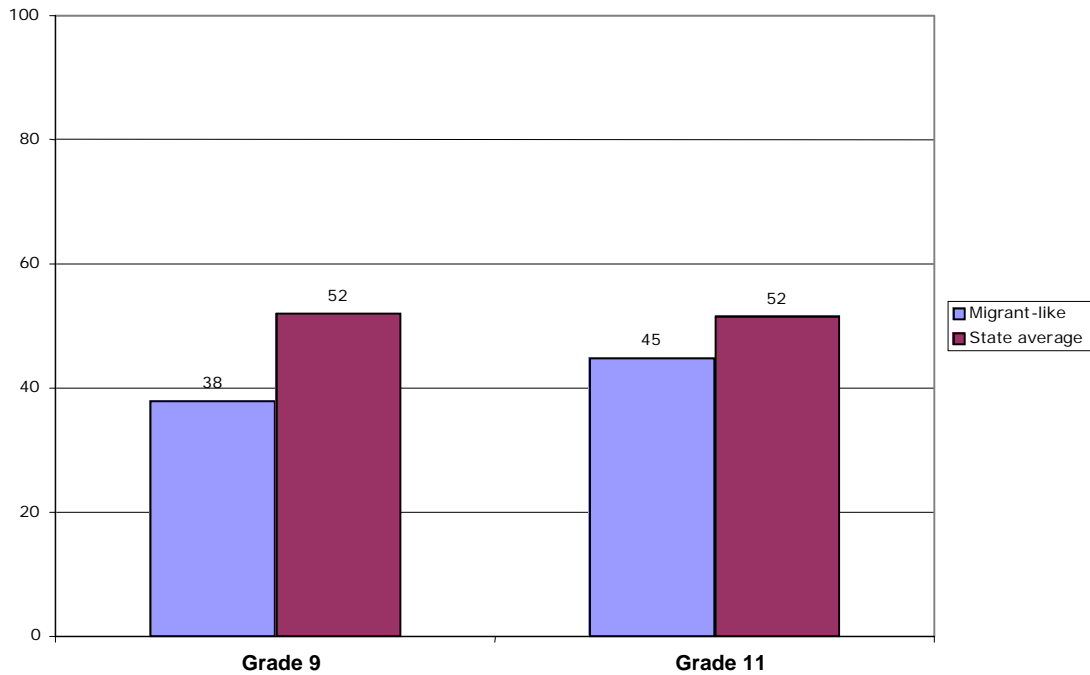
The available data provide a mixed picture of the health status of migrant-like students compared with the statewide student average. As shown in figure 3.6, “Students Diagnosed with Asthma,” approximately 12 percent of migrant-like students report that a doctor has diagnosed them with asthma. This percentage compares favorably with state and national averages in both the ninth and eleventh grades. The data shown in figures 3.6 through 3.13 are from the CHKS produced by WestEd.

Figure 3.6. Students Diagnosed with Asthma



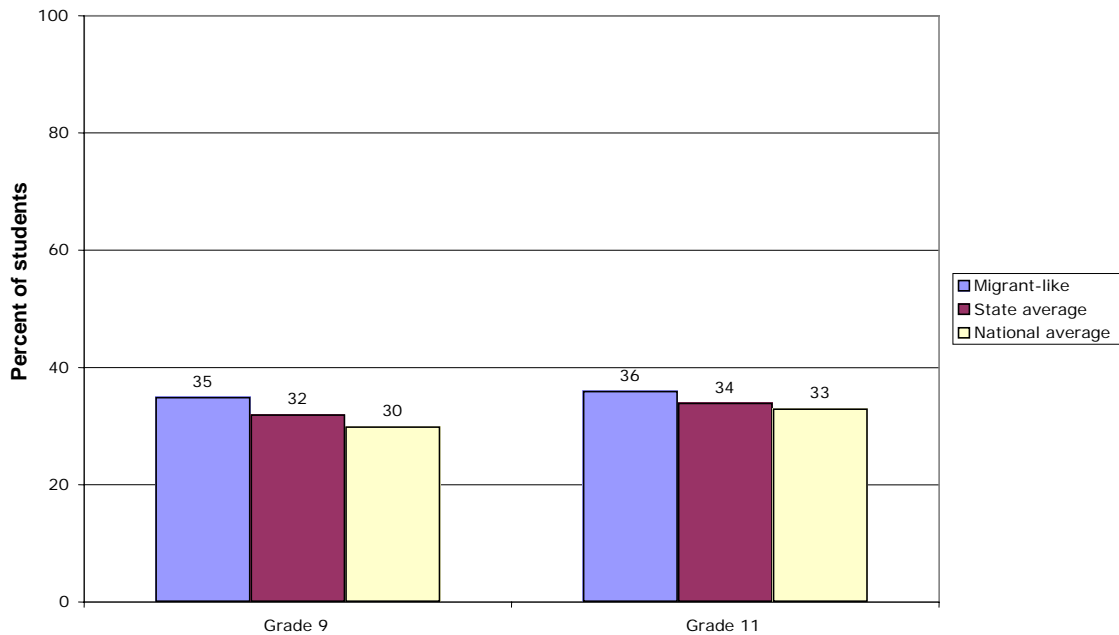
The rates of asthma diagnosis, however, may result from lower rates of medical checkups. Figure 3.7, “Regular Medical Checkups, Past 12 Months,” shows that 38 percent of migrant-like ninth-grade students and 45 percent of migrant-like eleventh-grade students report having had a medical checkup in the previous 12 months. In comparison, the state average for medical checkups is 52 percent for both the ninth and eleventh grades. No comparable national data are available.

Figure 3.7. Regular Medical Check-Ups, Past 12 Months



The percentages of migrant-like students who report that they are slightly or very overweight are also higher than those figures for the state and national averages, as shown in figure 3.8, “Students Describing Themselves as Overweight.” Thirty-five percent of migrant-like ninth graders describe themselves as overweight, compared with 32 and 30 percent state and national averages, respectively. In comparison 36 percent of migrant-like eleventh graders describe themselves as slightly or very overweight, a figure that is 2 and 3 percent higher than the state and national averages

Figure 3.8. Students Describing Themselves as Overweight



Similar to the findings for medical checkups, fewer migrant-like students reported visiting a dentist in the past 12 months. Figure 3.9, “Visit to a Dentist, Past 12 Months,” shows that 13 percent fewer migrant-like ninth-grade students and 10 percent fewer migrant-like eleventh-grade students received dental checkups in the past 12 months compared with the state average.

A large number of migrant-like high school students reported feeling depressed. In figure 3.10, “Students Who Report Sad and Hopeless Feelings, Past 12 Months,” 40 percent of the migrant-like ninth graders reported sad and hopeless feelings lasting at least two weeks. That number compares with a 34 percent average statewide and 29 percent average nationally. Only slightly fewer migrant-like eleventh graders (38 percent) report such feelings, compared with 37 percent statewide and 29 percent nationally. By contrast, fewer migrant-like students report serious thoughts of attempting suicide. The percentages of migrant-like responses to this item are lower than those for the state and national averages. See figure 3.11, “Students Seriously Considering a Suicide Attempt, Past 12 Months.”

Figure 3.9. Visit to a Dentist, Past 12 Months

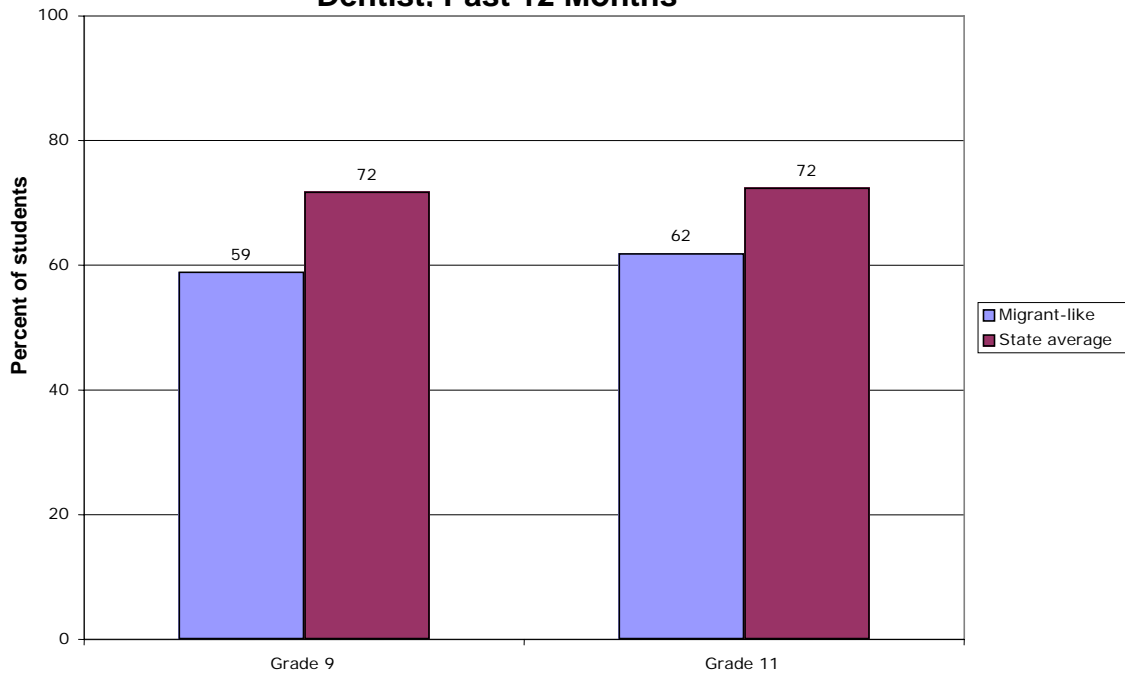


Figure 3.10. Students Who Report Sad and Hopeless Past 12

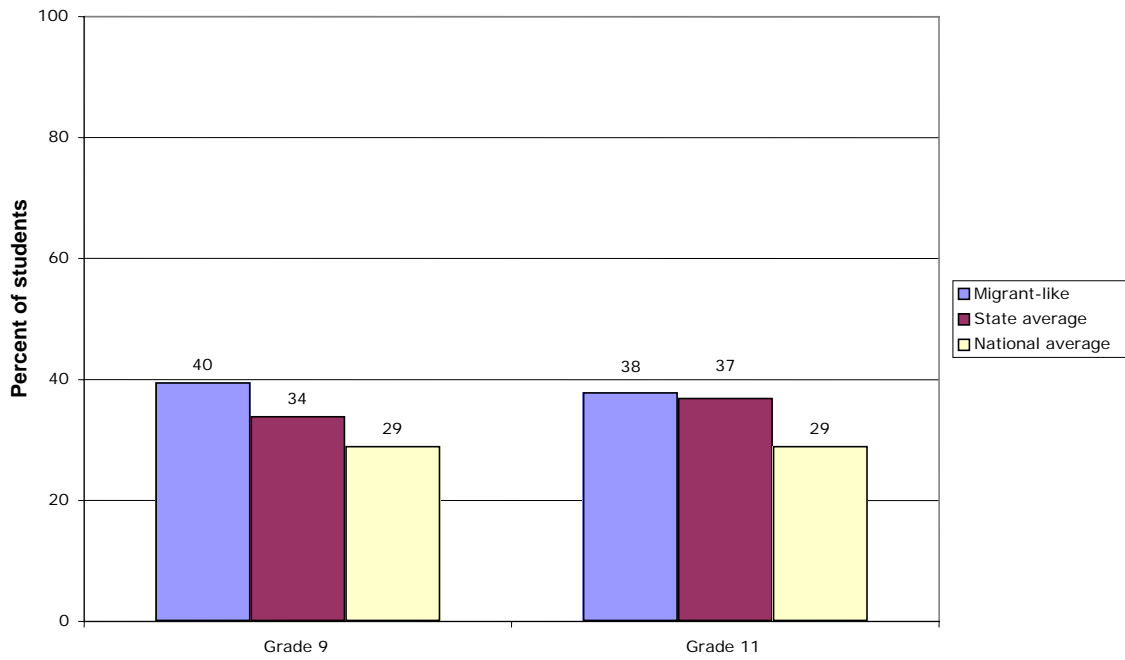


Figure 3.11. Students Seriously Considering Suicide Attempt, Past 12 Months

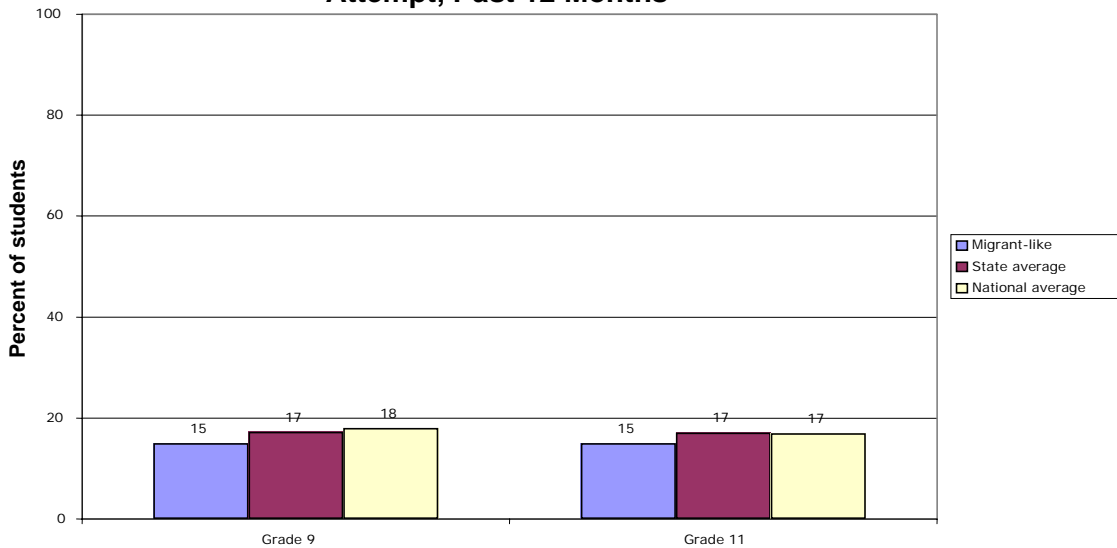


Figure 3.12, “Students Planning a Suicide Attempt, Past 12 Months,” shows that in the eleventh grade, students’ reports of planning a suicide attempt are on a par with the national average.

Of greater concern, however, are the actual suicide attempts. Figure 3.13, “Students Attempting Suicide and Requiring Medical Treatment, Past 12 Months,” shows that while the percentage of students planning an attempt in the past 12 months decreases from the ninth grade to the eleventh grade for all three samples, suicide attempts for migrant-like students is greater. The percentage of migrant-like students who report that their suicide attempts required medical attention exceeds the state and national averages.

Figure 3.12. Students Planning a Suicide Attempt, Past 12 Months

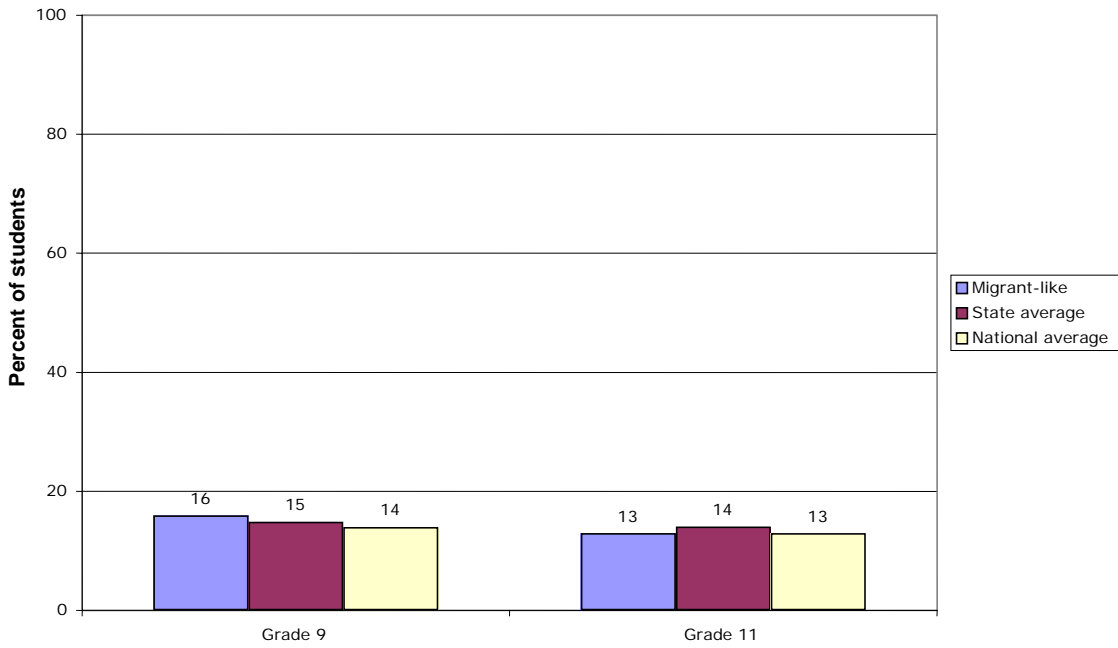
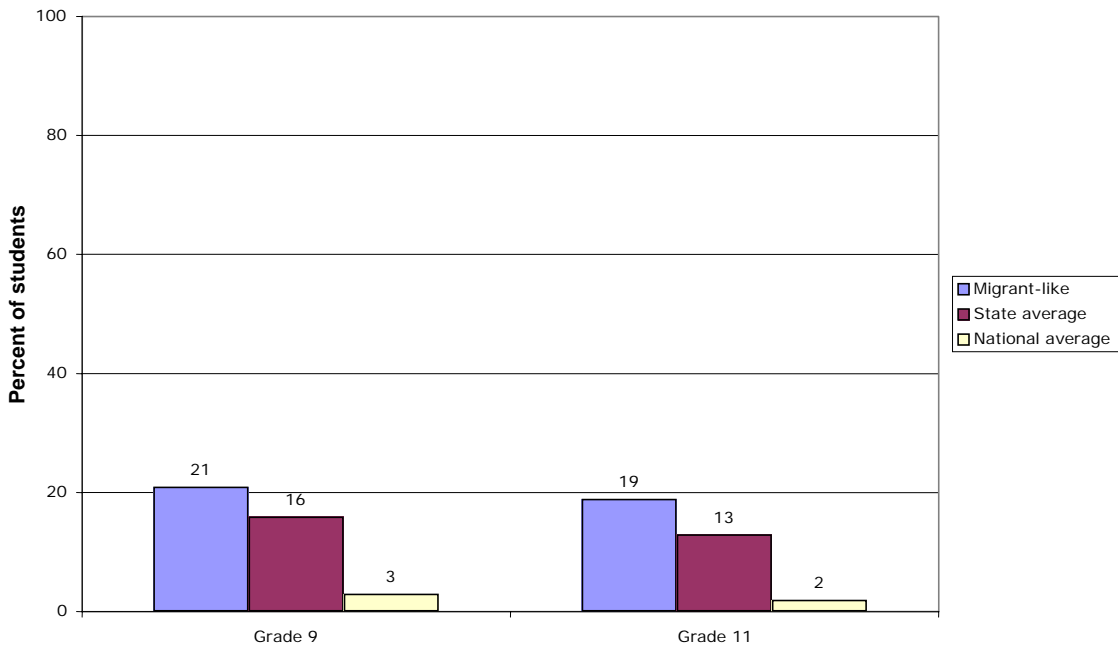


Figure 3.13. Students Attempting Suicide and Requiring Medical Treatment, Past 12 Months



Needs Statements

Although not a perfect profile match to migrant students, the needs of migrant-like students are clear, and the needs statements are as follows:

1. The percentage of migrant-like students who report unmet health needs should decrease to the state average.
2. The percentage of migrant-like students who report suicide attempts should decrease to the state average.
3. The percentage of migrant-like students who report suicide attempts that require medical attention should decrease to the national average.

Initial Solutions

On the basis of the findings for the migrant-like population, the High School Work Group concluded that migrant students may have similar experiences and as such recommends that the MEP should:

1. Partner with local health agencies to help migrant students get medical services they can afford.
2. Partner with local suicide prevention organizations to conduct informational workshops for migrant high school students and include hotline telephone numbers with informational packages distributed to those students.
3. Help migrant high school students who have attempted suicide in getting counseling services.

Access to Mathematics Services

MEPs provide educational and educational support services to migrant children. This section of the report discusses the concerns the advisory group raised about the instructional services in mathematics available to migrant students and especially to those students designated as priority for services (PFS).

Given the large percentage of migrant students who are performing below grade level in mathematics, as indicated by scores on the CST in mathematics, the mathematics group recognized that a majority of migrant students need additional support in mathematics. The experiences of migrant staff indicate that migrant students have unique difficulties in accessing support services outside the school day. These limitations include a lack of transportation; students' need to provide financial support to their families, making them unavailable to participate in academic activities after school; the lack of understanding of parents regarding the need for additional support; and the lack of space in after-school programs, especially if migrant students enroll after the beginning of the school year.

Concern Statement

The Mathematics Work Group was concerned that migrant students are not receiving support services in mathematics compared with other students in need of such services. The following concern statement was drafted:

Migrant students have limited access to mathematics services outside the school day.

Needs Indicators

Each migrant region collects data on mathematics support services provided to migrant students through the migrant program. While those students may receive additional services through the school or district, the services are not tracked in the same way as are those from the migrant program. Therefore, the Management Team decided to gather data on the two kinds of services identified and tracked in the migrant program:

1. Mathematics instruction. These services are provided by a credentialed teacher for students on a regular or systematic basis, usually for a predetermined period of time. This instruction can include correspondence courses taken by a student under the teacher's supervision.
2. Other instruction. This is any other instructional service in a subject area provided for students on a systematic basis, usually for predetermined period of time. Teachers or paraprofessionals can provide this instruction, which can include correspondence courses taken by a student.

Data were gathered on the students who scored below basic or far below basic on the CST mathematics tests.

Data Collection

The data were obtained from the statewide migrant database, using regional data from September 1, 2004, through August 31, 2005, and from the STAR test results from the 2005 CST mathematics assessment for grades two through eleven.

Data Summary

Table 3.15, "Migrant PFS Students Receiving Supplementary Services," shows the percentage of those students in grades two through eleven receiving supplementary mathematics and other instructional services. Table 3.16, "Migrant Students with No Interruption of Schooling Receiving Supplementary Services," shows the percentage of those students receiving those same services.

Table 3.15. Migrant PFS Students Receiving Supplementary Services

Students in grades two through eleven			
Types of services	Students scoring below basic	Students scoring far below basic	Students receiving services
Mathematics instruction	2,990	191	39%
Other instruction	538	224	9%
No services	2,905	1,251	51%
Total	6,433	1,666	100%*

*Due to rounding, percents do not total to exactly 100%.

Table 3.16. Migrant Students with No Interruption of Schooling Receiving Mathematics Supplementary Services

Students in grades two through eleven			
Type of services	Students scoring below basic	Students scoring far below	Students receiving services
Mathematics instruction	14,343	5,552	41%
Other instruction	2,736	1,104	8%
No services	17,661	7,047	51%
Total	34,740	13,703	100%

Approximately 49 percent of both groups of migrant students scoring below or far below basic are receiving mathematics supplementary services through the migrant program. The majority of students receiving services are either receiving instruction provided by a teacher or taking correspondence courses under the teacher’s supervision. The data also indicate that a small percentage of migrant students are receiving other instructional services. The percentage of PFS students receiving services and of the students with no interruption of schooling appears to be similar.

Needs Statement

Because research indicates that students scoring two years or more below grade level need to receive additional instructional time to accelerate their learning, the work group’s goal for migrant students would be to have all students who score below basic receive supplementary services. The work group decided on the following interim goal:

The percentage of migrant students scoring below or far below basic and receiving mathematics supplementary services should increase from 49 percent to 80 percent over the next three years.

Preliminary Findings

The data gathered regarding this concern have significant limitations. Each region reports the information with no way to confirm its reliability, and there is no way to identify a comparison group. The most striking difficulty is that no data are gathered in most regions to determine whether migrant students are receiving support services from nonmigrant providers. As a result, the Mathematics Work Group was unable to determine what percentage of migrant students receive academic support in mathematics from non-MEP providers.

In addition, the data do not indicate whether these supplemental services are provided during or outside the school day. However, in California there has been a trend away from using migrant funds to provide services during the school day, so these services are more likely to have been delivered outside the school day.

Further investigation is needed to determine the most effective interventions in mathematics. The work on this concern statement also indicated the need for improving data collection, which is discussed further in Chapter 5.

The Advisory Committee brainstormed recommendations for collecting data and expanding necessary support services. The first step would be to track all migrant students, beginning with PFS students, to identify those who are not receiving services from either migrant or nonmigrant programs. The migrant program needs to collaborate with school districts to get information on migrant students being served outside the migrant program and then to determine how to coordinate the services.

Recommended Solutions

The following solutions are recommended to improve the performance of migrant students in mathematics:

1. Expand the delivery of services to PFS students. The MEP should determine the reasons that students scoring below and far below basic are not receiving supplementary services from the migrant program and then use this information to implement solutions.
2. Track all migrant students who score below and far below basic to ensure they are receiving the maximum amount of available intervention and supplementary services.
3. Gather data on services received by *all* migrant students from all sources, both migrant and nonmigrant. Start by requesting data from the Title I program at the district level, including the names of migrant students receiving services, to get information on how many migrant students are served outside migrant education.
4. Increase the collaboration between districts and the migrant program to use resources more effectively to provide services, e.g., migrant students attend the

district's summer school, followed by two additional hours at migrant summer school.

Engagement in the School Community

Research has shown that students who are engaged in high school with such activities as student government, student organizations, and athletics have greater satisfaction with school, are more likely to pursue higher education, and are less likely to drop out. Additionally, positive and supportive relationships with adults in the school community contribute to students' sense of belonging and self-esteem, both critical elements to dropout prevention.

Concern Statement

To better understand the experiences of migrant high school students, the High School Work Group hypothesized that migrant students who are not engaged would experience lower satisfaction with school than would the general student population. The work group expressed the concern as follows:

Migrant high school students who are not engaged in their high school community do not graduate.

Needs Indicator

Because direct measures of migrant students' engagement with the school community do not exist, the High School Work Group and the Management Team explored alternative sources to quantify such experiences. The California Health Kids Survey (CHKS) emerged as a potential source because it is administered anonymously to a large number of high school students throughout the state. However, the CHKS does not identify migrant students, it does not ask migrant students to self-identify, and it does not allow for migrant students to be identified by other means.

To address the limitation, the Management Team decided to use the responses of migrant-like students. The Team defined *migrant-like* as self-identified Hispanic or Latino/Latina students who report moving at least once during the past 12 months and who attend a school with a high migrant student population. The Management Team developed the following needs indicator:

Determine the percentage of migrant-like high school students who report being engaged with the school community on the California Healthy Kids Survey compared with the statewide average.

Although the migrant-like construct is not a perfect indicator, it is believed to be the best available mechanism for exploring migrant students' experiences.

Data Collection

WestEd's Health and Human Development Program administers the CHKS annually to fifth through twelfth grade students throughout the state. The CHKS provides local decision makers with data about the health risks, social and emotional protective factors, and behaviors of youths. Module A provides indicators of drug use, violence, crime, and physical and mental health. Module B contains questions about resiliency and youth development.

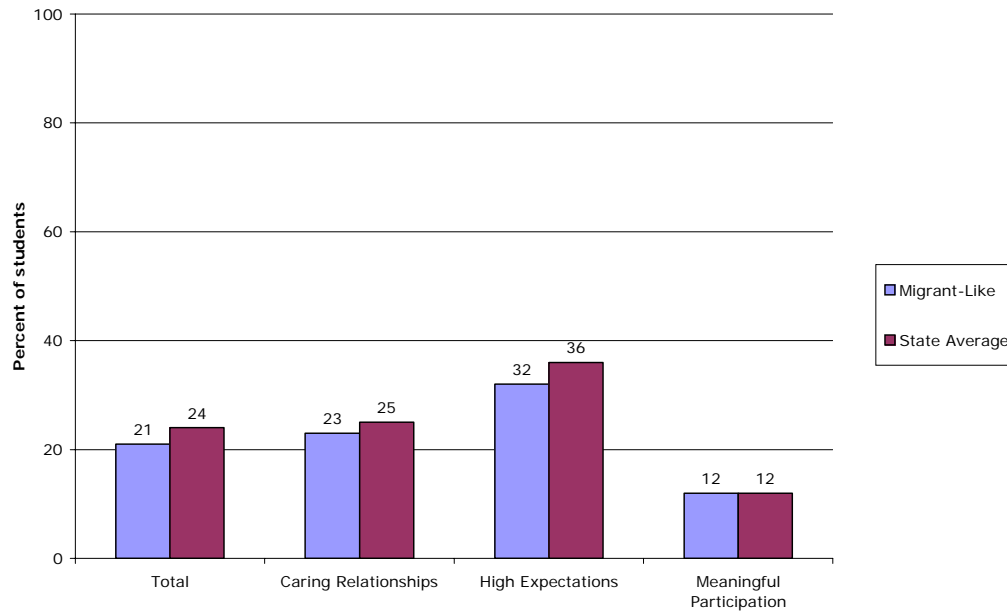
The Management Team requested CHKS data for the past two years for grades nine and eleven. The data were disaggregated for schools with migrant-like students. Comparisons of statewide averages were also provided.

Data Summary

The Management Team focused on the school environment section of the CHKS, which covers resiliency, youth development within the students' schools and homes, and relationships with peers. The CHKS attempts to measure assets, which are protective factors within the students and their environments that help them overcome life's challenges. Among the resiliency assets measured are the needs for safety, love, belonging, respect, identity, power, challenge, mastery, and meaning. The data provide the percentage of students scoring high assets, medium assets, and low assets on various asset groupings, along with a total score. For this study only the high-asset scores are examined.

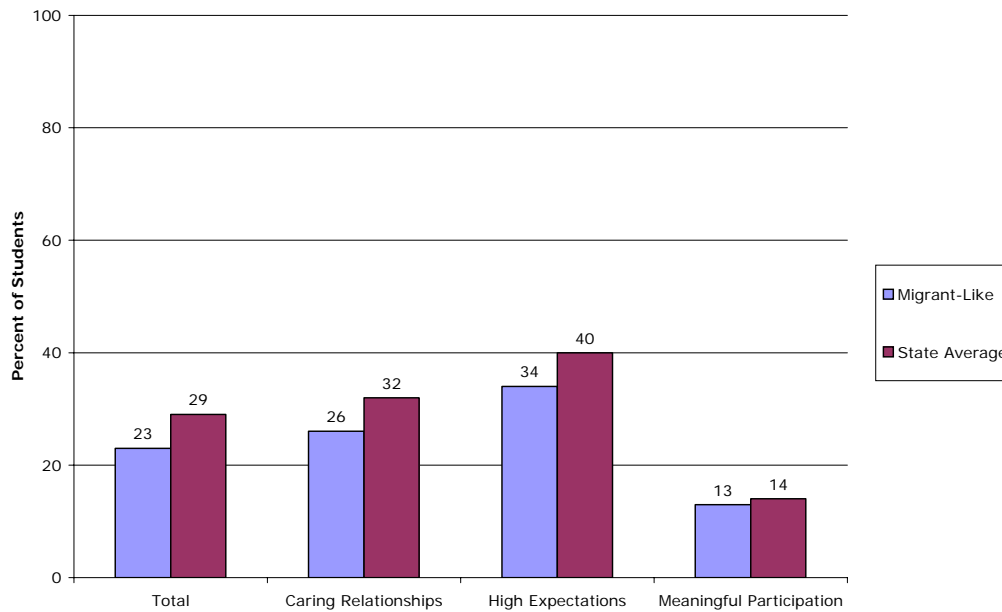
As shown in figure 3.14, "Comparison of Ninth-Grade Students' Assets," a review of CHKS data by grade level highlights differences between ninth and eleventh grade students and yields two conclusions related to the concern statement and need indicator. First, schools with large migrant-like student populations exhibit high assets scores on the "meaningful participation" scale, but fewer migrant-like students score high in assets on the issue of "an adult in the school community having high expectations" of them. Second, fewer migrant-like students score high in assets on having "a caring relationship with an adult in the school community" compared with the state average. The overall score is also lower for migrant-like students than for the statewide average.

Figure 3.14. Comparison of Ninth-Grade Students' Assets



As shown in figure 3.15, “Comparison of Eleventh-Grade Students’ Assets,” eleventh-grade students score higher on “high expectations” from adults and “caring relationships” with adults in the school community compared with the scores for their ninth grade counterparts. However, the data also show a growing gap between migrant-like students and the general student population when compared with the ninth-grade results. The percentage of migrant-like students scoring high on all four assets increased only slightly from the ninth to eleventh grades (21 percent to 23 percent), while the percentages for the general student population grew more strikingly (24 percent to 29 percent). The differences on the meaningful participation subscale are minimal.

Figure 3.15. Comparison of Eleventh-Grade Students' Assets



Needs Statement

Although the CHKS data and the migrant-like construct provide only a proxy for migrant students, the results indicate a need for migrant-like students to feel more engaged with the school community. The High School Work Group developed the following needs statement to address this issue:

The percentage of ninth- and eleventh-grade migrant-like high school students who have high scores on the subscales on the CHKS for caring relationships and for high expectations from adults in the school community will increase at high schools with large migrant student populations to the percentage for the state averages.

Initial Solutions

Migrant education should:

1. Assist schools in integrating migrant students into the general student population by encouraging participation in clubs, organizations, and athletics, including providing financial support for materials and equipment.
2. Facilitate parent-teacher interaction and teacher professional development that focus on the needs of migrant students and the importance of their participation in the school community.

Out-of-School Youth

One of the least understood and often underserved groups of migrant students is those under age twenty-two but not enrolled in school. In 1988 Title I, Part C, changed to expand the age range of migrant students being served from five through seventeen years of age to three through twenty-one years of age. Currently, migrant students under the age of twenty-two who have not graduated from high school and are not in school pursuing a high school diploma are entitled to receive Migrant Education Program services as out-of-school youth (OSY).

OSY include young people with a variety of circumstances. Some have attended school in either the United States or another country and dropped out, while others have very little formal education. Many OSY are in California to work in agricultural or related areas and migrate throughout the United States in search of work. In 2004-05, the California Migrant Education Program identified 37,132 OSY in the state. It is widely believed that this number undercounts the actual number of qualifying youth, given that some regions do not identify or serve these young people.

Lack of Skills or Educational Goals for Success

These young people are often at a serious disadvantage because they are not enrolled in the school system and do not have the information or ability to obtain educational, health, and other services. Few agencies in the community address the needs of this population, and information is lacking on how to best meet their needs. The experience of migrant staff in the CNA Work Group has been that many OSY who are in the United States to work are interested in pursuing their education once they are aware of the options available to them. While they often have limited literacy skills, “the popular perception that these seasonal laborers are here only temporarily and therefore not interested in learning English is inaccurate” (Hill and Hayes 2007, v).

This section describes the concerns developed by the OSY Work Group, the data gathered to address them, and the initial recommendations of the work group. As explained further, this section follows a different format from the previous ones, because of the unique characteristics of out-of-school youth and the limitations of the available data about them.

Concern Statements

Six concern statements for OSY were initially developed by the High School and OSY Work Groups.

Migrant OSY:

1. Do not have the grade-appropriate literacy skills to succeed academically.
2. Do not have the grade-appropriate math skills to succeed academically.
3. Do not have the English language development skills to succeed academically.
4. Do not have access to the academic support services that meet their needs.

5. Do not have access to the guidance and support services to complete high school or the equivalent.
6. Do not perceive themselves as capable of taking advantage of the educational opportunities available to them.

In subsequent discussions, the work groups identified two subgroups of OSY:

(1) Dropouts: migrant youths who have attended U.S. high schools and dropped out; and (2) OSY “here to work”: migrant youth who have never attended high school or migrant youth who attended high schools in their country of origin and are in the United States to work. The needs and challenges of each of these groups are very different, so the work group revised and consolidated the concern statements to address these differences. The group agreed on the following three concerns to investigate:

1. Migrant OSY who have completed the eighth grade or the equivalent in the United States or their home country but still lack the necessary skills for academic success

The group discussed possible reasons for the lack of skills, e.g., these youth are English learners, do not have access to reading materials, do not spend time reading, have missed essential learning because of their mobility, and so forth.

2. Migrant OSY who have less than an eighth-grade education do not have access to appropriate support services (such as health, housing, dental care, and emergency food) that would help them in completing the educational process
3. Migrant OSY who do not perceive themselves as capable of taking advantage of the educational opportunities available to them

The group discussed possible reasons for these concerns and possible obstacles facing OSY. The discussion centered on these questions. Do OSY:

- Have the time and energy, if they are working, to take advantage of available educational opportunities?
- Have the resources (e.g., transportation and child care)?
- Have an understanding of what they need?
- Want to take advantage of educational opportunities?
- Know how to ask for support?
- Know whom to ask for support?

Data Collection

In trying to develop need indicators for the concerns listed previously, the OSY Work Group and the Management Team concluded that the only source of data to address these concerns was the OSY interview forms. They are used by the MEP staff to interview migrant OSY in their first language (the interview forms are available in both English and Spanish). However, until recently, each region used its own form, and not all regions undertook outreach to OSY. Therefore, the team decided to use data from three regions that have used a similar interview form and have aggregated data available electronically. Data from two of these regions have also been analyzed in a

report by the Public Policy Institute of California, which kindly let the work group use the results for the needs assessment (Hill and Hayes 2007, 23–36).

Interview data from 2,232 migrant students classified as OSY were gathered in the following three regions through the use of a similar form: Region 1, Santa Clara County; Region 5, Kern County; and Region 11, Pajaro Valley Unified School District. Data for Region 1 were collected during the 2004-05 school year; data for Region 5 were collected during the 2003-04 school year, and data for Region 11 were collected during the winter of 2002 through the fall of 2005.

Data Summary

Data from the interviews of these OSY are summarized in the following section. As noted below, the available data differ somewhat among the regions. The interview form gathers information on educational levels, literacy skills, reasons for leaving school, educational goals, and health and socioeconomic needs.

Percentage of OSY completing the eighth grade. Data from Region 5 indicate that out of 950 OSY interviewed, 57 percent stated that they had completed the eighth grade or higher in the United States or another country.

Literacy skills. Data from Region 5 indicate that out of 950 OSY interviewed, only 20 percent stated that they could read and write in English. In contrast, 98 percent of the group said that they could read and write in Spanish. Similar data from regions 1 and 11 indicate that out of 1,213 students interviewed, 91 percent were Spanish speaking.

Reasons for leaving school. Two sources of data were available to determine why OSY left school. In Region 5 a total of 962 young adults were interviewed about their reasons for leaving school. The most common reason was the lack of money or the need to work, reported by 72 percent. The next most common reason was “disinterested,” given by 9 percent.

The 2007 report from the Public Policy Institute of California (PPIC) analyzed data from regions 1 and 11, which included responses from 541 young adults about their reasons for leaving school (Hill and Hayes 2007). This report disaggregated OSY by here-to-work students and dropouts. The here-to-work students have not attended school in the United States, whereas the dropouts have attended school in the United States. Table 3.17, “Primary Reasons for Leaving School Among Out-of-School Youth,” shows the percentage of youths that gave each of the reasons for leaving school.

Table 3.17. Primary Reasons for Leaving School Among Out-of-School Youth

Reasons	Here-to-work students (percent)	Dropouts (percent)
Need to work	39	12
Never attended school	37	0
Low credits/age	1	28
Unmotivated	1	22
Moved	8	10
Discipline problems	0	8
Family	1	11
Information not provided	11	7
Other	3	3

Source: Data from Hill and Hayes 2007.

These data indicate that of those youth here to work, 39 percent left school in order to work. In contrast, for dropouts, the most common reasons given for leaving school were “low credits/age” (28 percent) or “unmotivated” (22 percent). More than a third of those here to work (37 percent) responded that they “never attended school.” According to the PPIC report, this response most likely indicates that they were not asked why they left school once it was clear that they had not attended school in the United States (Hill and Hayes 2007, 52).

Educational goals. Two sources of data were available to determine the educational goals of out-of-school youth. In Region 5, a total of 962 young adults were interviewed and the goals given most often were learning English/ESL, named by 67 percent, and getting a GED, named by 32 percent.

The 2007 report from the Public Policy Institute of California (PPIC) aggregated data from regions 1 and 11, which included responses from 541 young adults. This report disaggregated OSY by here-to-work students and dropouts. Table 3.18, “Educational Goals Among Out-of-School Youth,” shows the percentage of youth who identified each of the educational goals.

Table 3.18. Educational Goals Among Out-of-School Youth

Educational goals	Here-to-Work students (percent)	Dropouts (percent)
English as a second language (ESL)	83	17
GED	31	39
Adult education	35	20
Vocational training/job training	24%	30
Earn high school diploma	6	53

Source: Data from Hill and Hayes 2007.

These data indicate that of those youth here to work, the goal stated most often was ESL (83 percent), while for dropouts, the most common goal stated was to earn a high school diploma (53 percent).

Health and socioeconomic needs. In regions 1 and 11, health and socioeconomic needs were reported on 541 students, as shown in table 3.19, “Self-Reported Health Needs of Out-of-School Youth.” Responses were disaggregated by youth here to work and dropouts, similar to the procedure for the previous tables.

Table 3.19. Self-Reported Health Needs of Out-of-School Youth

Needs	Here-to-work youths (percent)	Dropouts (percent)
Medical	63	51
Dental	71	52
Vision	61	32

Source: Data from Hill and Hayes 2007.

These data indicate that more than half of all OSY reported a medical or dental need. A higher percentage of here-to-work youth reported health needs in all three areas compared with the responses from those who have dropped out of school.

In the area of other socioeconomic needs, regions 1 and 11 reported the percentage of OSY indicating each type of need, as shown in table 3.20, “Self-Reported Socioeconomic Needs of Out-of-School Youth.” These groups were not disaggregated by types of OSY because the responses were quite similar in most cases between the two groups.

Table 3.20. Self-Reported Socioeconomic Needs of Out-of-School Youth

Needs	Total (percent)
Counseling	49
Clothing	49
Drug and alcohol intervention	40
Childcare	35
Transportation	41
Food	13

Source: Regions 1 and 11 assessment data, *Out-of-School Youth*, 2007.

These data indicate that the need cited most often by the OSY is the need for counseling and clothing (both 49 percent), followed closely by transportation (41 percent) and drug and alcohol intervention (40 percent).

Findings from the Data

Although the Advisory Committee and OSY Work Group members were able to collect data on OSY in only some regions, the findings seem to point consistently to differences in the kinds of needs or extent of needs reported by youth who are here to work and students who have dropped out of school. This result suggests that local programs will be able to target their services more effectively when they have access to the data that distinguish these groups.

Initial Recommendations

Members of the OSY Work Group and the Advisory Committee made numerous suggestions on ways that the Migrant Education Program could strengthen its support for OSY. For the following areas the MEP should make it a program priority to adopt the recommendations listed below the following categories:

Data Collection

- Adopt the new uniform “Migrant Education Out-of-School Youth Needs Assessment” form for all identified OSY in the state.
- Have a statewide database to collect data from the assessment form and use that information to determine the academic and support services needed by OSY.
- Collect data on the number of OSY who receive a GED or a diploma according to whether they are dropouts or here-to-work youth.

Outreach

- Identify migrant OSY with unmet needs for health and social services.
- Extend services to OSY from community resources to areas where services are not available.
- Use MEP resources to provide services to OSY (e.g., mobile dental clinics, health fairs).

Coordination

- Work with high schools, adult education programs, community colleges, and the Mexican Consulate to establish enough programs to meet the diverse needs of here-to-work students and students who have dropped out of U.S. schools.

Client Services

- Identify and develop programs to address OSY academic and support needs.
- Provide some options and services at the time of the assessment.
- Assist OSY in obtaining services.
- Provide accessible options such, as preparing for the GED (in Spanish) during evenings and weekends.
- Provide advocacy and guidance counseling.

- Provide team intervention for the small percentage of OSY with special needs (e.g., teacher, mental health counselor, law enforcement personnel).
- Provide career orientation and workshops.

Capacity-building in the MEP

- Identify and train mentors and advocates for OSY.

Leadership at the State Level

- Develop statewide program guidance for OSY.
- Continue the statewide OSY committee and network.

Concern Statements Not Studied

While conducting the CNA, the Management Team realized that the members would be unable to study all the concern statements. In a few cases, further investigation was not feasible for logistical and financial reasons, but in most instances data were simply not available or could not be collected.

The underlying approach in the CNA is to look at data that focus on a perceived scholastic gap between migrant and mainstream students. Not all of the concern statements were constructed in a measurable format. In a few other cases, the data needed to inform the concern statements are extremely expensive to collect, or the time frame in which the data could be collected extended beyond the timeline allocated for the CNA's initial phase. Finally, for a significant number of concern statements, the Management Team was unable to locate any data.

Bilingual Preschool Instruction

Spanish is the primary language of more than 99 percent of the migrant students whose home language is other than English. Research indicates that providing such students with Spanish instruction in preschool is one way to prepare them for kindergarten.

Many preschool programs, especially those that enroll significant numbers of migrant students and those operated by MEES, claim to offer preschool classes in which Spanish is a medium of instruction.

Concern Statement

Even though the passage of Proposition 227 in 1998 affected only students in kindergarten through grade twelve, some CNA participants felt that in recent years many preschool programs may have switched to instruction primarily in English. Also, when migrant students attend preschools operated by other agencies (e.g., local school districts, Head Start), the instruction most likely is in English. The concern is stated as follows:

Prekindergarten migrant students in site-based preschool programs do not receive adequate or sufficient primary language instruction as the means to develop basic concepts in literacy and mathematics.

Needs Indicator

The feelings of the CNA participants were that as many Spanish-speaking migrant students as possible should receive bilingual preschool instruction whenever parents and guardians request it. However, it is not possible for many preschools to provide primary language instruction, especially in districts with small enrollments of Spanish-speaking students.

One standard that can be used to determine feasibility for primary language instruction is the former Bilingual-Bicultural Education Act of 1980 (which experienced “Sunset” in 1987 and then was repealed by Proposition 227). The Act required bilingual classes to be formed whenever ten or more English learners of the same primary language group were enrolled in a class. Therefore, the Management Team suggests that at least 95 percent of the Spanish-speaking students enrolled in classes in which ten or more students have Spanish as a primary language should receive preliteracy and premathematics instruction in and through Spanish.

Data Collection and Analysis

To study this concern, the Management Team needs to survey a sample of preschools that enroll migrant students and determine the extent to which individual instructors use Spanish for instruction for development in literacy and mathematics.

It became clear that collecting these data within the time frame would not be possible for several reasons. First, there is no statewide database to indicate which preschools, other than the MEES program schools, enroll migrant English learners. Second, even in the case of the MEES program, determining the language of instruction requires interviewing individual preschool teachers, both center- and home-based, to determine the amount of time and the ways in which Spanish is used as a medium of instruction. The Management Team decided that no further study of this item was feasible at this time.

Parental Knowledge Base and Advocacy

To successfully advocate for their children in the public school system, parents of migrant students not only need to know how the educational system functions, but they also need to develop skills to interact effectively with school districts to ensure that their children receive needed programs and services.

Concern Statement

Members of the Advisory Committee and the School Readiness Work Group felt that, in general, migrant parents of preschoolers might not be prepared to interact with the school districts. Barriers such as language, cross-cultural confusion, and lack of

knowledge of the educational system may dissuade migrant parents from making requests.

The work group developed the following concern statement:

Parents of prekindergarten migrant students lack the information and advocacy skills necessary to request resources and services that are available for their children in their school and community.

Needs Indicator

When the CNA participants attempted to develop a needs indicator for this item, they faced several problems. First, the item contained two elements: information and advocacy skills, which are both difficult to define. What specific information do parents need to know and what specific advocacy skills should they possess? Without a comprehensive review of the research in this area, the CNA participants were unable to identify the exact knowledge elements and the specific advocacy skills parents need. The group also realized that elements of information would be specific to individual schools and districts and not applicable across the state.

Data Collection and Analyses

Even if these elements could be defined, determining whether an individual migrant parent possessed them would be difficult. A well-trained interviewer would be needed to conduct an in-depth interview with a randomized sample of specifically situated parents (those parents whose oldest child is at the stage of entering preschool). This effort would require an extended timeline and significant financial resources.

As a result, the Management Team agreed that pursuing this item at this time would not be feasible.

Number of Accumulated Preschool Hours

The NCLB has pressured schools to increase students' performance on standardized academic assessments. Because preschool education is correlated with increased academic achievement in elementary school, improved preschool education would be expected to affect students' performance and satisfaction with early education experiences.

Currently, migrant students can be enrolled in home-based or site-based preschools. While the home-based preschools vary in configuration and structure, site-based preschools have standards and guidelines governing educational programming.

Concern Statement

The Advisory Committee and School Readiness Work Group expressed an interest in how many migrant students are completing a minimum amount of preparation before entering kindergarten. For site-based MEES programs, this task translates into

determining the number of migrant students who are completing at least the 100-hour minimum standard for preschool education. The concern statement follows:

Eligible migrant students do not complete sufficient preschool instruction (at least 100 hours) prior to kindergarten enrollment.

Needs Indicator

The CNA members reasoned that migrant students should have a minimum level of preparation by the time they are eligible to enroll in kindergarten. The School Readiness Work Group recommended that the CNA determine the number of migrant students who have completed 100 hours of preschool before enrolling in kindergarten.

Data Collection and Analysis

The MEP funds an independent evaluation of the MEES program schools. This annual summative evaluation gathers data on a number of variables. The Management Team hoped to use this report as a source of information on the number of preschool hours that MEES program participants completed. However, these data were not collected in a way that would allow the Team to determine the exact number of preschool hours individual students received.

As previously noted, no data systems are available in other preschool programs that identify migrant participants. Consequently, the effort to gather data on this item was abandoned.

Academic Effects of Migrancy on Reading

Missed schooling is thought to contribute more than any other factor to the underachievement of migrant students. Whenever migrant students move from one community to another, they not only miss school but the continuity of the educational experience because the curricula and instructional approaches differ. This predicament is further complicated because for some migrant families, the pattern of transience includes trips out of state and even outside the United States to places such as Mexico.

Concern Statement

The CNA Reading Work Group examined the school attendance patterns of PFS students. They were selected because they (1) have documented underachievement on the CST reading and language arts battery; and (2) have had a qualifying move during the most recent school year.

The concern was stated as follows:

PFS migrant students receive significantly less instructional time than they need to master grade-level reading and language arts skills.

The work group further clarified the concern. Generally, during the school years when individual migrant students do not experience a qualifying move, their attendance is equal to and even on occasion superior to mainstream students'. However, as a result of a qualifying move, the concern is that migrant students miss a considerable number of school days.

The work group also felt that collecting data on the number of missed days not only would expose the attendance gap between migrant and nonmigrant students but also would provide migrant educators with an approximate target for the number of instructional days that should be provided to migrant students to compensate for the absences.

Data Collection and Analysis

The Management Team planned to retrieve the files of all students who scored below basic on the CSTs May 2005 language arts battery. These data were then to be disaggregated according to students enrolled and not enrolled in the California School Information System (CSIS) of participating districts. Using CSIS, participating districts would allow the work group to determine the total number of days of attendance for an individual student during a particular school year.

Unfortunately, in mid-December 2006 it was discovered that CSIS could not provide attendance data on any students, and no other attendance source could be identified. Enrollment data exist, but they frequently are not accurate for determining the attendance of migrant students. Apparently, at the time of a qualifying move, when migrant students leave a school district, the official date of their disenrollment often is not recorded for several days or even a week or more after the students' departure. Using enrollment data to analyze of the attendance patterns of highly mobile migrant students would lead to a significant undercount of the number of days of absence.

Until another source of attendance data is identified, the Management Team has decided not to study this item. Schools are funded through the process of average daily attendance (ADA), and it may be possible to obtain those records for a randomized sample of PFS migrant students to determine their attendance patterns.

Timely Enrollment Associated with a Qualifying Move

According to law, migrant education service providers must identify PFS students as those migrant students with the greatest need for supplementary educational services. There are two criteria to identify such students: (1) the student is underachieving; and (2) the student has experienced a qualifying move within the most recent school year. All PFS migrant students who are underachieving in reading should receive supplementary literacy instruction. When such pupils move from one school to another, the supplementary assistance should continue with the least possible interruption.

Concern Statement

The concern was stated that the PFS migrant students' new school does not provide many of them with supplementary reading instruction soon enough. On the basis of informal observations, it was felt that in many cases, a considerable amount of time elapses between students' enrollment at the new school and the provision of supplementary reading services. This delay may be a significant factor in the PFS students' reading underachievement.

The CNA Advisory Committee and Reading Work Group developed the following concern statement:

In the case of PFS students, after a qualifying move, a significant number of days elapse between enrollment in a receiving school and the start of supplementary literacy interventions.

Needs Indicator

The Management Team realized that it would have to collect three sets of separate data on a sample of PFS students. First, the departure date from the feeder school would need to be determined. Second, the enrollment date in the new school would need to be recorded. Finally, the date when supplementary reading instruction began at the new school would need to be determined.

From these data the CNA not only could learn how long the PFS students were absent from school during qualifying moves but also could discern the length of time between enrollment in the new school and the start of supplementary literacy instruction. These data could be compared with those for a sample of non-PFS migrant students who would serve as a comparison group.

Most of the educators familiar with supplementary services suggested that, on average, underachieving students identified for those services should receive them within five school days of enrollment. The CNA would then determine the average number of days between enrollment in a receiving school and the receipt of supplementary services and compare that average with the standard of five school days.

Data Collection and Analyses

The Management Team confronted the following issues in collecting data:

1. The date of disenrollment from a school district is often not accurate. Students may be absent from the feeder school for a week or more before they are reported as departed from the school and officially disenrolled.
2. The date a migrant student enrolls in a new school tends to be accurate because of the certificate of enrollment.
3. The time span between enrollment in a new school and provision of supplementary reading instruction is difficult to determine. First, receiving schools are unlikely to track dates systematically when supplementary services are initiated for migrant

students. Second, it may be difficult to define which services qualify as supplementary reading instruction. Must a teacher provide this service? May an instructional assistant provide it? Must it be provided daily?

4. Where would such data be located? There is no central tracking system, and the data that are collected are handled differently by each district, school, and classroom. Extensive efforts by specialized experts would be required to obtain a randomized sample across the state.
5. Finally, how are the data collected? Most likely, available data have been collected by paper and pencil methods. It would be difficult to obtain sufficient data in this format and transpose them into a format that is amenable to automated data analysis.

Given the many obstacles to collecting and analyzing data related to the timely enrollment of PFS migrant students in supplementary reading instruction, the Management Team decided not to pursue this item at this time.

Mismatch Between Diagnosis and Supplementary Reading Instruction

The Reading Work Group expressed a concern about supplementary reading services for PFS students. Because these students may have reading needs that are unique when compared with those for other underachieving students, the work group felt that in many cases, these students do not receive supplementary reading assistance directly linked to their diagnosed needs.

Concern Statement

The combined background and schooling experiences of PFS students often lead to unique reading difficulties. Many times these students come from a non-English background, have frequent disruptions in schooling, and experience various unarticulated reading programs. This situation leads to gaps in literacy development that may linger for several school years. This condition often results in instructional needs of migrant students that are often significantly different from the needs of most of the schools' underachievers. The problems are exacerbated because some migrant students are not enrolled in a school when the staff conducts comprehensive diagnostics on individual students to prepare for future supplementary instruction.

After considerable deliberations and much difficulty, the Reading Work Group developed the following concern statement:

There is a mismatch between PFS students' assessed literacy needs and the supplementary instructional interventions that these students receive in reading.

Data Collection and Analysis

It became clear immediately that this complex item addressed more than a single concern. The issues involved migrant students' instructional needs as well as the ways in which schools are organized and provide supplementary services to underachieving populations.

In addition, to study the link between diagnosed needs and supplementary instruction, the Management Team would have to identify, with available diagnostic data, a randomized sample of PFS students receiving supplementary instruction in a setting that a skilled reviewer could observe. The complexities involved in such a study would require a considerable investment of resources and time, neither of which were considered feasible in the context of the CNA. Consequently, the Management Team decided not to pursue data collection for this item.

Academic Effects of Migrancy on Mathematics

The CNA Mathematics Work Group identified the loss of instructional time as an important factor affecting migrant student achievement. The nature of mathematics involves sequential learning, and students who miss school for any length of time are more likely to fall behind in the acquisition of mathematics skills and conceptual understanding.

Concern Statement

The CNA Mathematics Work Group sought to examine the school attendance patterns of PFS students. This group of students was selected because they (1) have documented underachievement on the CST mathematics battery; and (2) were involved in a qualifying move during the most recent school year. The specific concern was statement follows:

Migrant students receive significantly less instructional time than is needed to master mathematics skills.

Needs Indicator

The CNA Mathematics Work Group further clarified the concern as related to students with a qualifying move. Generally, during the school years when individual migrant students do not experience a qualifying move, their attendance is equal to and even on occasion superior to mainstream students'. However, as a result of a qualifying move, migrant students miss a considerable number of school days.

The CNA Mathematics Work Group also felt that collecting data on the number of missed days not only would expose the attendance gap between migrant and nonmigrant students but also would give migrant educators an approximate target number of instructional days that should be provided to such students to compensate for the absences.

Data Collection and Analysis

Similar to the approach proposed for the reading concern statement, the Management Team planned to retrieve the files of all students who scored below basic on the May 2005 administration of the CST mathematics battery. The idea was to take a sample of migrant students enrolled in districts that participate in CSIS. The Management Team thought that CSIS included data on student attendance. Through this sample, CST

mathematics scores of migrant students could be analyzed according to attendance patterns. Unfortunately, on further investigation, the Management Team determined that the desired data could not be retrieved from CSIS at this time.

Differences Between Schools and Districts in Mathematics Instruction

The Mathematics Work Group identified a challenge facing migrant students who frequently change schools and districts. In California each district, and sometimes even each school within a district, may have a different mathematics textbook, may emphasize different mathematics standards, or may deliver mathematics instruction in a different sequence. For students moving from one school to another or from one school district to another, their mathematics instruction may be disjointed; or they may have gaps in their mathematics learning, even if they do not lose instructional time. A student may have a full year of instruction, but because the curriculum between schools differs, that student might not be exposed to, much less be able to master, all the essential mathematics standards for a given grade level.

Concern Statement

The group developed the following concern statement:

Migrant students experience a different sequence of mathematics topics, emphases on standards, and procedures as they move between schools or districts.

Needs Indicator

The Management Team did not pursue a needs indicator for this item because early in the process, it became clear that data collection would not be possible.

Data Collection and Analysis

Data collection on this concern statement would require developing a random sample of PFS students and then analyzing their mathematics curriculum at the most recent sender and feeder schools. The complexity and expertise needed to conduct such analyses and the personnel costs involved convinced the Management Team that further study was not possible.

Conflicting Mathematical Procedures

A substantial number of migrant students have attended schools in both Mexico and the United State, and migrant parents were often educated in Mexico while their children have been educated mostly in the United States. Mathematics teachers indicate that the mathematical language and procedures often differ between the Mexican and the U.S. educational systems. It can be difficult for students if their mathematics instruction has used different procedures or terminology for the same concepts or operations. In addition, parents who learned mathematics by using different procedures and language than their children's teachers are using may have difficulty in helping their children

Concern Statement

The group developed the following concern statement:

Migrant students experience conflicting mathematical procedures and language of instruction between home and school and between the United States and Mexico.

Needs Indicator

The Management Team determined that to gather data for this concern, a group of migrant students would have to be selected who had experienced mathematics instruction in both the United States and Mexico. Then their instruction would have to be compared to determine whether those students experienced conflicting procedures and language. Another method would be to interview parents who were educated in Mexico about their instruction in specific mathematics procedures or concepts and compare their responses with those of parents educated in the United States.

Data Collection and Analysis

The Management Team concluded that it was not feasible to gather data on the mathematics instruction received by a randomized group of students or to gather data on how migrant parents learned specific mathematical concepts.

Social Skills for Entering High School

Many students making the transition from middle to high school are overwhelmed by the change of location and social environment. Peer pressure and the need for acceptance are strong. Migrant students, as a mobile population, may lack the language proficiency to feel confident enough to make new friends and may also lack long-term social connections to resist forces that prevent them from succeeding academically.

Concern Statement

The High School Work Group hypothesized that the transition to high school would be exacerbated for migrant students. Some migrant students experience pressures and expectations beyond their abilities to manage, and as a result they fall prey to detrimental social choices, such as gangs and peer pressure. The work group articulated the following concern:

Migrant high school students are not entering high school with appropriate social skills to succeed academically (such as resistance to peer pressure and gangs or asking for help).

Needs Indicators

The statewide data available through the California Healthy Kids Survey were deemed inadequate to answer the question at hand. The Management Team developed the following needs indicators:

1. Determine the percentage of migrant first-year high school students who perceive that they have appropriate social skills to succeed in school compared with migrant first-year students who perceive that they lack those skills.
2. Determine the percentage of a sample of ninth-grade migrant high school students who possess social skills appropriate for their ages and grades, as reported by their counselors.

Data Collection

The Management Team concluded that primary data collection was not feasible given the complexities of developing a valid instrument and mechanism for administration. Moreover, the team believed that surveys conducted by school counselors might violate confidentiality laws and privacy regulations. Given the sensitivity of collecting this type of data, the Team was also concerned over the data's reliability. Consequently, no further action was taken.

Parental Contact with School Counselors

Parents who actively plan and monitor their students' education generally have students who perform better academically. Similarly, parents who communicate with school personnel, particularly with teachers and counselors, are better informed about their students' progress and more knowledgeable about the educational system and the requirements for academic success.

Concern Statement

The High School Work Group speculated that parents who experience higher-level communication with school counselors are better able to help their students in understanding the educational process and requirements for success. The work group stated the concern as follows:

Parents of migrant high school students do not have frequent, consistent, and focused meetings with teachers and counselors that support their students' academic success.

Needs Indicators

The Management Team organized the concern statement into the smaller needs indicators. The following needs to be determined:

1. Among the parents of underachieving high school migrant students (those with less than a 2.0 GPA), what percentage report at least one meeting with a teacher

or counselor during each of the past two semesters to discuss improving their children's academic success?

2. Of the parents who report at least one meeting per semester, what is the percentage who indicate that the meetings resulted in a specific plan of action aimed at improving their children's academic performance?
3. What is the percentage of counselors who report meeting with a sample of the parents of underachieving migrant students at least once during each of the two most recent semesters?
4. What is the percentage of counselors who report that a specific plan of action designed to improve the academic performance of the underachieving migrant student was agreed on during the meetings with the parents?

Data Collection and Analysis

The challenges of collecting data on this item would require (1) identifying a random sample of high school PFS students; (2) identifying the counselors for each of those students; and (3) having the counselors complete a form about each of the students. Besides these logistics, the main barrier appeared to be that counselors are unlikely to keep detailed records of contacts with migrant students and their parents and would be unable to recall accurately the encounters with this group. Consequently, the Management Team decided not to pursue this item further.

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Chapter 4

Initial Research Base for Migrant Issues and Interventions

Ideally, the CNA should culminate in identified needs statements and solutions well-matched to meet those needs. Those concepts, in turn, should direct programming efforts at the state level. This process is possible when (1) reliable data are available; and (2) appropriate research literature is reviewed for choosing solutions that have succeeded with similar populations. The latter part of this process is yet to be completed. Recommendations for follow-up work are provided in Chapter 5.

Chapter 3 reports the findings on all available data. Chapter 4 builds on the initial solutions offered by the Advisory Committee on the basis of extensive field experience. Deeper understanding of the obstacles and solutions called for an exploration of the existing research literature. This review allows for the validation of potential causes and solutions for the identified needs.

In this initial review of the research, some of the central issues and debates have been identified. In addition, descriptions of program interventions and their effectiveness are included, where available. Each section in this chapter ends with possible implications for migrant programs and a list of references cited.

The goal of this endeavor is not academic. Its primary purpose is to inform deliberations among policymakers and practitioners who work and make decisions in migrant education. As with any interpretation of research, the experience and particular expertise of the authors informed these initial summaries. As more work is done, much more refinement is expected in these knowledge bases.

The initial protocol for assembling this knowledge base consisted of identifying research articles that optimally:

- Were published in peer-reviewed journals
- Were published after 1980
- Included migrant students in their sample

Not every source met these criteria, but most did.

Research on the Ages of Migrant Students in Kindergarten

As a response to the school readiness concern statement, the CNA staff studied the average age of kindergarteners. California school enrollment data show that more than 23 percent of migrant students are overage when they enroll in kindergarten and that another one percent of those students is older than the age of seven when they enroll.

Causes of Late Enrollment

The primary causes of late enrollment are thought to be related to one or more of the following factors:

1. Parent knowledge

Many migrant families are not aware of information concerning the optimal age for enrolling children in kindergarten. They are also unlikely to be familiar with the laws concerning the legally permissible age for enrollment in California. Given other family priorities, migrant families in these situations feel little urgency to enroll their children in a timely manner.

Complicating this situation is that some school officials unwisely counsel parents to delay enrolling their children in kindergarten, mistakenly believing that late enrollment gives pupils a better chance for maturity and thus preparedness for the academic and social demands of kindergarten. In these cases, parents rarely have sufficient knowledge to challenge the well-meaning but errant recommendations of school officials.

2. Immigration

A significant percentage of migrant students are immigrants and the children of immigrants. If young children residing in Mexico or another country reach the age of eligibility to enroll in kindergarten when their parents immigrate to the United States, the families may not have the opportunity to enroll their children in kindergarten in a timely manner.

3. Home environment

Virtually all migrant families have a very low socioeconomic status, and more than 90 percent come from non-English speaking, ethnic-minority backgrounds. Under those conditions, children do not generally have a home environment that provides opportunities for optimal early childhood development and readiness for school. Also, in many cases when parents feel that their child is not “ready” for school, they may decide to delay enrollment without consulting a school official who is familiar with early childhood education.

4. Opportunities for preschool participation

Often migrant families are not aware of the importance of and the opportunities for enrolling their children in preschool. Because of a migratory lifestyle dominated by transience, migrant children often do not receive priority for enrollment in preschool programs.

5. Underachievement and retention in kindergarten

As a result of low socioeconomic home environments, a non-English language background, and limited opportunities for preschool education, many migrant students progress more slowly in kindergarten than do mainstream students and therefore are more likely to be retained.

Research Summary

Since the 1970s school readiness and early childhood education have been the subjects of extensive and varied research, consisting of targeted studies, reviews of the literature, and meta-analyses. Many of the studies have addressed issues associated with the provision of preschool services to disadvantaged children and ethnolinguistic minorities, such as migrant students.

Retention

One of the subtopics studied in great detail is retention. Whether the research was conducted in the early 1970s or after 2000, the findings have been consistent. Retention rarely assists an individual or groups of students and often is associated with negative academic and social outcomes (Shepard and Smith 1990; Silbergliitt and others 2006; Hong and Raudenbush 2005). This finding has been consistent for studies conducted in the United States and other countries (Holmes 2006; Jimerson and others 2006).

Even though the body of research strongly supports the idea that retention is harmful to students in general, the same studies have also found that despite the evidence, educators continue to use retention as a primary policy to address underachievement. These practices have had a greater effect on migrant students and other minority pupils than they have on the mainstream population. The National Dropout Prevention Center has proposed 15 researched-based alternatives to retention that the organization considers effective in reducing underachievement and lowering the school dropout rate (Ciliberto 2001). These alternatives include activities such as those recommended in the next several sections of this report.

Early Versus Delayed Kindergarten

In a related matter, there is considerable controversy regarding the optimal age for the enrollment of children in kindergarten. Many educators have argued that delaying the entry of disadvantaged youth by a year provides an opportunity for them to “mature.” However, similar to the findings of the research on retention, the trend in studies on optimal kindergarten enrollment age appears to support early entry (Gay 2002; Lincove and Painter 2006).

Preschool Participation

In the modern era, research on the value of preschool has been conducted since the 1960s. In most cases, this body of research has shown that students who participate in preschool not only outperform their counterparts in the K–12 program but also have

lower rates of various academic and social problems in school. One of the more important research findings that apply to migrant students is that preschool participation seems to be a powerful intervention in giving disadvantaged youth an opportunity to reduce the academic gap that has traditionally separated them from their mainstream peers (Magnuson and others 2004; Ramey and Ramey 2000).

Although research on other school readiness programs is not as extensive and robust as that in the preschool programs, the consensus is that any program that develops the overall school readiness levels of children, such as MEES or kindergarten academies, tends to provide an educationally significant advantage to students (Garcia-Sims 2007). However, since these other programs tend to be less comprehensive and robust than regular preschool programs are, the educational effects are likely to be more modest compared with the outcome of participating in well-implemented preschool programs.

Initial Solutions

The following solutions should be considered to address the primary causes of overage of migrant students in kindergarten:

1. Parent education programs

The MEP should sponsor, cosponsor, or otherwise collaborate with parent education programs for migrant parents that include (1) the identification of families with kindergarten-age migrant students; (2) parent orientation regarding kindergarten enrollment; (3) parent awareness of the importance of preschool participation; and (4) information concerning the availability of supplementary migrant preschool and kindergarten support services.

2. Preschool enrollment and support

The MEP should identify and facilitate the placement of as many migrant students of preschool age as possible in center-based preschool programs. When preschool slots are not available, the MEP should facilitate placement of those students on waiting lists. If migrant students are not able to enroll in center-based preschool programs, the MEP should provide such students with MEES services.

3. Supplementary kindergarten instruction

For migrant children who are at risk scholastically, such as those who have not attended preschool or who are not otherwise prepared for the challenges of kindergarten, the MEP should provide short-term, intensive kindergarten academies before those children are enrolled in the regular kindergarten program.

Additionally, when migrant students fail to make adequate progress in kindergarten, those students should be provided with supplementary academic support services, such as those available through MEES.

Collectively, the solution procedures suggested here should greatly reduce the number of overage migrant students at the kindergarten level. Those procedures, in turn, are likely to give migrant students as a group a better start in formal schooling and reduce significantly the academic gap that separates them from their mainstream counterparts.

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Research on Educational Support from the Home

There has long been recognition that parental involvement in students' education can make an important difference in students' academic achievement. Since its inception, the MEP has included parent advisory committees at all levels to ensure that parents have a voice in decision making. Many migrant regions have developed parent

education and training activities to support parents in taking an active role in their children's education.

It is often assumed that the socioeconomic status of a student's parents will determine a student's potential for academic achievement. However, evidence is growing that higher levels of parent involvement are associated with increased academic success across socioeconomic groups. Research during the past 10 to 20 years has attempted to distinguish the meaning and content of parent involvement in different ethnic and socioeconomic communities and to define more specifically what aspects of parent involvement have the most influence on academic achievement. Some studies have analyzed successful schools or districts and determined what approaches or programs are being used. Other studies have tried to correlate specific parent activities with student achievement.

This brief overview of research on parent involvement highlights four main areas: (1) home environment; (2) parent expectations; (3) outreach and training; and (4) involvement at school.

Home Environment

Marzano (2003) cites a study by White indicating that "home atmosphere" has the strongest relationships with student achievement compared with other aspects of socioeconomic status, e.g., income, education, and occupation. Home atmosphere as defined by Marzano is composed of three elements: (1) communication about school; (2) supervision; and (3) parental expectations and parenting styles. Marzano cites research by Fan and Chen in these three areas to elaborate the characteristics of each aspect. Communication about school involves frequent discussions with children regarding schoolwork and providing encouragement and resources. Behaviors associated with effective home supervision include monitoring the time spent on homework and the extent to which students watch television. Research on the third aspect indicates that parents' communication of high expectations for their children's academic performance is associated with greater achievement. The research Marzano cited on parenting styles indicates that an "authoritative style" as opposed to an authoritarian or permissive style has the best association with school success. The characteristics of the authoritative style include communicating interest in the day-to-day lives of children, establishing household rules with suggestions from the children, and using consequences rather than harsh punishments.

Another study corroborated Marzano's observation that socioeconomic status and parent education levels are not the most influential factors affecting parent involvement and student success. In 2001 Shumow and Lomax (cited in Grayson 2004) found that "for Hispanic families, SES and education level were not related to a sense of efficacy" These authors found that the greater the parental sense of competency, the more the parents monitored their children and became involved within the school environment, and the more student achievement increased. Parents' sense of competency in this study was defined as parents feeling they were successful in

positively influencing their children, helping their children remain drug and alcohol free and out of gangs, and working to strengthen the schools and neighborhoods.

In 2002 Clark (cited in Grayson 2004) analyzed data from 1,000 students in 13 states, in the first through twelfth grades and college, and found a correlation between higher test scores and time spent at home under parental supervision doing academic tasks, compared with children spending time in unstructured activities. A research brief from the Center for Policy Studies, Education Research and Community Development (CPSE 2003) found that “family literacy is critical to achieving fluency in reading,” and “home literacy practices seem to establish the most significant relation to the student’s reading attitude.”

Parental Expectations

Additional research identifies parental expectations as key to students’ academic success. Clark (cited in Grayson 2004) found that “high-achieving students came from families that maintained high expectations for educational achievement and established home environments that supported academics. High-achieving students spent more time on their homework, used a dictionary more often, and had families who held higher expectations for educational outcomes than low-achieving students.” Another study concluded that “it is the parents’ aspirations about their children’s education attainment that has a consistent and positive effect on students’ academic growth” (Fan and Chen 2001, cited in CPSE 2003).

A case study of migrant families with successful students found that those families prioritized time and resources for the education of their children and communicated high expectations for their academic performance (Lopez 2001). This study captured the stories of four immigrant and migrant families residing in Texas and showed the importance of how parental involvement is perceived. Lopez found that although those parents did not regularly attend school functions or participate in the PTA, they perceived themselves as highly involved in the educational lives of their children. For those families, involvement was defined as teaching their children the “value of education through the medium of hard work.” The parents reported taking their children to work with them in the fields at an early age and teaching their children about the limited opportunities available to them if they dropped out of school.

Outreach and Training

Research also supports the value of providing information and training to parents as a way to increase student achievement. In a study of 71 high-poverty schools in seven states, Westat and Policy Studies Associates (2001) reported that “outreach to parents had a positive effect on student test scores. High levels of parent outreach included face-to-face meetings, sending materials home with instructions on how to help the child, and communicating regularly by phone.” The positive effects of training parents is also shown in the research by Shumow and Lomax in 2001 (cited in Grayson 2004), which used a national sample of 929 families of children ten to seventeen years old. This research concluded that training led to an increase in parents’ sense of

competency and efficacy in helping their children. Research by Henderson in 1988 (cited in Grayson 2004) also found that training low-income families to participate helped those parents increase their level of participation and become more supportive of school activities.

In a study of four school districts with recognized parental involvement programs, the common types of parent education programs were those aimed at increasing awareness and promoting self-improvement (Lopez 2001). Lopez emphasizes that meaningful services include courses such as ESL, GED, sewing, home maintenance, and handling of pesticides, all of which can provide a means for families to improve their economic situation and thus be able to focus their energies on raising their children and helping them succeed in school. Lopez suggests that school personnel should focus on meeting the economic and psychological needs of families, i.e., home involvement on the part of the school, more than emphasizing parental involvement at school.

Involvement at School

There are some differing views in the research regarding the value of focusing efforts on increasing parental involvement at school compared with supporting parents' efforts at home. A recent study by Lee and Bowen (2006) tried to differentiate the types of parental involvement according to parents' different socioeconomic levels and racial groups. Their findings were that "parent involvement at school and parent educational expectations demonstrated the strongest association with children's educational achievement." While the authors suggest that "identifying and reducing barriers among Latino/Hispanic, African American, low-income, and less-educated parents should be an emphasis of strategies to engage parents at school in their children's education," they also suggest that "creating opportunities for staff-parent contacts outside of school might lead to the same benefits as contacts at school and should be explored." Lopez argues that migrant parents in particular are less likely to be engaged at school, but nevertheless parents provide strong support at home, which can be reinforced and validated by schools.

Recommendations and Preliminary Conclusions

The migrant program is well-suited to strengthen parent and family involvement in the education of migrant students. The program can provide information to parents on how to create the most beneficial home environment, train them in skills and knowledge to improve their economic situation, and assist them in becoming more engaged in their children's school and being advocates to ensure that their children's needs are met. The migrant program can also strengthen partnerships and build connections between families, schools, and community agencies.

Practices that are supported by research include the following:

1. Reinforce the positive expectations among migrant parents regarding their children's academic achievement and validate the important role that expectations play in students' success.

2. Provide information and develop parents' skills in creating a home environment and supporting academic success at home.
3. Work with schools and districts to increase communication and outreach to migrant parents.
4. Train parents as well as migrant staff in the knowledge and skills they need to increase their ability to access the educational system and advocate for migrant students.

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Research on English Language Development

The analysis of migrant students' ELD progress conducted as a part of the study of the Reading Work Group clearly shows that while migrant students begin second language development slightly ahead of their peers, nonmigrant students quickly catch up to the level of migrant students at the early intermediate level and by the intermediate level, they have surpassed the migrant cohort.

The research evidence is insufficient to identify clearly the causes of the underachievement of migrant students in ELD. The following phenomena are a part of the possible causes related to the migrant lifestyle:

1. Migrant students miss considerable instructional time as a result of qualifying moves.

2. ELD programs offered from one school district to another may differ significantly in curriculum and instructional approach. In most cases, there is little articulation among programs.
3. In many school districts ELD is viewed as a supplementary instructional offering, and the quality of curriculum, instruction, materials, and teachers varies considerably.
4. In some cases, school districts may not even offer organized ELD instruction, or late arrivals during the school year may not be placed in such courses for lack of vacancies.

Most likely, the underachievement of migrant students in ELD is linked to the effects of the interaction of variables associated with (1) low socioeconomic status; (2) minority group membership; and (3) migrancy. The effects of the interaction of these variables appear to be the same ones that negatively influence the general academic achievement of migrant students across the curriculum and the grade levels. ELD as a subject does not seem to be unique in this aspect.

The fact that migrant students begin ELD ahead of their English learner counterparts fits nicely with research (Cummins 2001; Christian and others 2006) that indicates that when second language learners have adequate exposure to English, they will acquire conversational ability in that language. However, as language learning becomes more cognitively demanding because it requires academic language proficiency, especially advanced reading and writing skills, migrant students are unable to keep up with other English learner peers (Thomas and Collier 2002). Clearly, the ELD needs of migrant students center on the issues associated with the development of academic language skills in English.

Current Research on English Learners

Most reviews of the research associated with English learner education in the United States identify three major approaches associated with the development of academic English proficiency and literacy in English (National Reading Panel 2003):

1. ELD
2. Sheltered content instruction
3. Bilingual instruction

Dutro and Kinsella (2007) point out the need to provide English learners with an organized, explicit, and focused course of study of English as a second language. These researchers state that the target of such language instruction should be based on (1) language not already acquired by English learners; (2) language not explicitly taught in other parts of the curriculum; and (3) language that is not typically acquired by nonnative speakers. The ELD instruction should be enhanced by additional sheltered content instruction both in English–language arts and in the other content courses, such as mathematics, science, and social sciences.

The contemporary leading research on sheltered content instruction is represented by the Single Integrated Operational Plan (SIOP) model (Echevarría, Short, and Vogt 2003). This research looks at the evidence related to the teaching of content and language within the same lesson. Special scaffolding and related second language teaching techniques are used, and each sheltered lesson is characterized by both language and content objectives. Generally, the language objectives are taken from the ELD standards (or with advanced students from the English–language arts standards), and the content objectives are selected from the grade-level standards of the course being taught (e.g., mathematics, science, or social science). The importance of sheltered content instruction is that such instruction not only provides English learners with comprehensible access to the core curriculum but also gives them meaningful exposure to academic English in ways that promote effective second language acquisition.

Finally, although more politically controversial in California than the previous two strategies, native language instruction, known as bilingual education in the United States, has been shown in research to be an effective way to provide English learners with access to the core curriculum (Cummins 2001; Baker 2006; Christian and others 2006). English learners in well-implemented dual-language programs, for example, have been able to achieve grade-level proficiency in English and their native language and also attain grade-level standards in the academic courses of study (Lindholm-Leary 2001).

For a general overview of the research on English learner programs, including ELD, sheltered content, and primary language instruction in the California context, see California Department of Education (in press).

Focus on Migrant Students

Outcome data on migrant students associated with the California English Language Development Test (CELDT) suggest that migrant students are not acquiring academic language skills in English at the same rate as other English learners and fall approximately one-half year behind their English learner counterparts when most English learners are considered for reclassification as students of fluent English proficiency (FEP). Reclassification generally takes place when English learners reach the advanced-intermediate and advanced levels of English proficiency.

While these research data are insufficient to determine the exact causes associated with this lag in achievement of ELD among migrant students, it can be assumed that migrant students would benefit significantly from supplementary instruction that is beneficial to the English learner population in general. The following types of supplementary instruction for English learners might be particularly helpful to subgroups of migrant students when there is a need to focus on academic language development:

1. Advanced ELD courses that focus on the academic language skills of reading and writing

2. Sheltered content courses designed for second language learners in such subjects as mathematics, science, and social science—especially if the supplementary courses are designed to rectify academic deficits that may have occurred during the period of initial English acquisition
3. Native language instruction for literacy development or as a medium of instruction or both for core academic subjects, such as mathematics, science, and social science, whenever migrant students who are English learners are underachieving in those subjects

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Research on the Unmet Health Needs of Migrant Children

The CNA work groups propose that unmet health needs impede the learning process for migrant students. Migrant students, due in part to socioeconomic factors, may experience bouts of a treatable and manageable illness, such as asthma, because it has been untreated. These circumstances cause inattentiveness, missed attendance, and misbehavior that are more severe or more frequent than they are for nonmigrant students.

Using a variety of methods, the CNA work groups sought evidence that migrant students have unmet health needs. A questionnaire was administered during home

visits with MEES parents, and opportunistically with parents of school-aged migrant students. Evidence of unmet health needs of migrant high school students was also sought from statewide student surveys, such as the California Health Kids Survey. Smaller studies and data collected by a few migrant regions provide evidence of the unmet health needs of out-of-school youths. To further investigate the effect of unmet health needs on learning and development, the work group reviewed the literature.

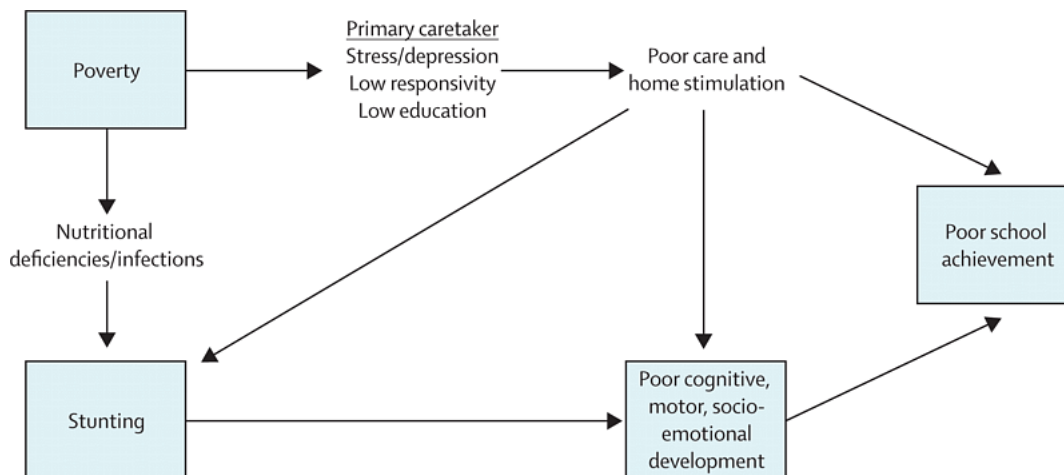
The Effect of Health on Learning and Development

In 1994, as a part of the National Education Goals, the U.S. Congress established the *Goals 2000 Educate America Act*, which states:

Goal 1, Section B, (iii) children will receive the nutrition, physical activity experiences, and health care needed to arrive at school with healthy minds and bodies, and to maintain the mental alertness necessary to be prepared to learn, and the number of low-birth weight babies will be significantly reduced through enhanced prenatal health systems.

Delineating precisely how individual health factors affect educational attainment, however, is tenuous, given that many factors are intertwined and largely interdependent. Researchers and practitioners seeking to understand health status and educational attainment have developed models to explain the relationship. A concise model shown in figure 4.1, “Factors Influencing Low Academic Achievement,” depicts the impact of poverty, child health, and early development on academic achievement.

Figure 4.1. Factors Influencing Low Academic Achievement



Source: Grantham-McGregor and others 2007.

In an article published in *Public Health Reports*, Novello, Degraw, and Kleinman (1992) argue that to address the issue of education properly, decision makers must also address a myriad of health issues, such as prenatal care, childhood immunizations, injury prevention, and drug and alcohol abuse. Novello and her colleagues conclude further that a child must be healthy, both emotionally and physically, for learning to occur. The authors state:

The first steps toward successful achievement of the (school) readiness goal will require the identification of health, education, and social service programs that serve young children and their families, and the creation of a climate that fosters innovative and effective collaboration between programs at the Federal and State levels, especially as it pertains to the community.

While many of the health issues studied by researchers, practitioners, and academics are prevalent in the general population, some are particularly significant for migrant families. The research literature offers limited insight into the health status and well-being of migrant children, because most studies derive conclusions based on small or regional samples or they indirectly address migrant children. As such, the available research provides an incomplete understanding of the health needs and status of migrant children and their families.

Health Services and Insurance

Migrant children have been found to suffer disproportionately from parasites, anemia, gastroenteritis, and overall poor nutrition, as well as from ear and respiratory infections, including tuberculosis. The statistics indicate that migrant families do not gain access to health services at rates comparable to those for the general population. For health services to be effective, individuals must be able to gain access to local services in a language they can understand and during convenient hours. A study by the Kaiser Family Foundation (Rosenbaum and Shin 2005) on migrant families found that in 2000, 85 percent of migrant families compared to 35 percent of low-income families in California lacked health insurance. A study of California agricultural workers' health (Villarejo and others 2001) found that 50 percent of the respondents who reported seeking health care sought care in Mexico because of the expense of health care and language barriers in the United States. More recently, a report by the Kaiser Commission on Medicaid and the Uninsured (Rosenbaum and Shin 2005) found that 85 percent of migrant farm worker families were uninsured compared with 37 percent of the general population. The 2001 California Agricultural Workers Health Survey found that the number of migrant workers who obtained health services and the number who reported being in the country legally were identical.

While the migrant population's mobility contributes to its low rates for using health care, migrant families arriving in new and at times unfamiliar communities need to know which health services are available. Mobility also hinders migrant families from qualifying for coverage under Medicaid because of a restrictive state residency requirement (Wright and others 1993). Wright and colleagues also argue that the key to improving the status of migrant families is the portability of government health programs. Under authority from the Social Security Act, the U.S. Secretary of Health and Human Services is authorized to waive provisions of Medicaid eligibility to allow migrant families to gain access to health services. Among the provisions that may be waived are state residency guides that would allow migrant families to carry insurance from state to state. Provisions or laws that support the continuity of care and the ability of the migrant population to follow through with the physician-prescribed care, especially after moving to another community, can contribute to improving the overall health status of migrants.

The shortage of health care providers in the migrant communities also keeps families from receiving services. In addition, Villarejo and others (2000) found that in some communities, only private physicians, who had limited acceptance of Medi-Cal insurance, were practicing in their communities, and office hours were limited to normal business hours when migrants may not be able to go.

Prenatal Care and Related Risks

Complications during gestation or birth have a significant relationship with subsequent outcomes for child development. As Novello and her colleagues point out, “prenatal care is especially important for women at increased medical or social risk” (1992, 3) Among the characteristics associated with medical and social risks are low socioeconomic status and low high school graduation rates. For migrant families mobility that disrupts the continuity of care and direct and indirect periodic exposure to pesticides can be included among these risk factors. With proper prenatal care, expectant mothers are advised about maintaining a proper diet, as well as being monitored for diabetes, high blood pressure, and other gestational conditions. Equally important, prenatal care serves to monitor fetal progress.

Inadequate prenatal care has been associated with higher rates of low-birth-weight infants, higher rates of infant mortality, birth defects, and other early childhood ailments. Low birth weight in turn has been associated with decreased educational attainment (Conley and Bennett 2000). These outcomes have also been found to persist through early adulthood (Sorensen and others 1997). More broadly, the social functioning of infants with abnormal gestations or complications at birth has been documented, and children with these early life experiences have altered developmental paths. Children with reduced social functioning also experience more chronic illnesses, resulting in more frequent or prolonged absences from school (Meijer and others 2000).

The rates of prenatal care for migrant women are not entirely certain in part because few studies have focused on the prenatal care for that group. Indirect evidence, however, is more readily available. Some studies have found that nearly 10 percent of undocumented immigrants had no prenatal care before giving birth at a California hospital. In 2005 the Kaiser Commission on Medicaid and the Uninsured (Rosenbaum and Shin 2005) found that only 42 percent of migrant farm worker women had sought care during the first trimester of pregnancy. By comparison 76 percent of women in the general population had done so.

Women who do not receive early and recommended prenatal care are nearly four times more likely to deliver a low-birth-weight baby and almost seven times more likely to deliver prematurely compared with the rates for documented immigrant women who received prenatal services (Lu and others 2000). In a study of Colorado’s undocumented immigrant population, Reed and colleagues (2005) found that the undocumented women were more likely to experience labor complications and fetal distress than nonimmigrants were. In 1997 the Centers for Disease Control (CDC) and Prevention conducted a retrospective study of the prenatal care behaviors of migrant women participating in Women, Infants, and Children (WIC) and the subsequent birth

outcomes. The CDC found that migrant women were less likely to receive early prenatal care and less likely to gain the proper amount of weight during pregnancy. The results are alarming, given that WIC provides supplemental food vouchers for women from early in pregnancy until the child reaches five years of age and gives referrals for health and social services. As such, outcomes for WIC migrant women can be considered optimal for low-income populations.

Social and Emotional Development

Michael Wadsworth's research (1986) indicates that poor health and illness in early childhood are linked to poor outcomes for education and health. In addition, Evans (2004) found that lower-income parents are less likely to support the educational development of their children. According to Evans, low-income parents are less attentive of young children and more likely to use harsher forms of punishment. Further, studies have shown that class and income are factors in parent-child interactions. Kagan and Tulkin (1971), for example, found that low-income parents speak less often and in less-sophisticated ways to their ten-month old infants compared with the practices of middle-class parents. Low-income mothers also spend less time talking to their infants and less time with their daughters than with their sons. Hart and Risley (1995) also found that higher income parents tend to use more words of higher quality and are more responsive in their speech with their children compared with the communication skills of their lower-income counterparts.

Children who lack proper social and emotional development early in life often exhibit behavior problems in school and the community. The negative experiences for migrant children are numerous, including limited-English proficiency, constant mobility, and frequent transfers to schools, and being older than fellow classmates (Wright 1991). These events can affect the emotional and social development of migrant children. Migrant children have been found to experience rejection from peers and adults in the community for aggressive and unconventional behaviors (Kupersmidt and Martin 1997). Coles, in his seminal 1965 study, found that migrant children suffered from relatively high rates of emotional and social problems; yet, they seldom received professional assistance. Kupersmidt and Martin also found that nearly 60 percent of migrant children exhibited one or more psychiatric disorders. Among the disorders were generalized anxiety, separation anxiety, disruptive behaviors, and depression. Compounding problems, such as parents' low employment status and educational levels, characteristics common to migrants, are also related to higher rates of rejection as children grow older (Hart and Risley 1995).

Perhaps more subtle than child abuse, child maltreatment and neglect have been found to be more prevalent among migrant children. Larson, Doris, and Alvarez (1990) found that migrant children suffered from maltreatment at three times the rate of nonmigrant children. Among the types of interactions considered maltreatment were physical, emotional, and sexual abuse; physical neglect; and willful disregard for maladaptive behavior. Theorized causes of maltreatment include economic and social pressures, family conflict, and social and physical isolation (Alvarez, Doris, and Larson 1987).

Often overlooked among the factors of social and emotional development is exposure to violence. A study comparing migrant children who were either exposed to or were victims of violence shows that such exposure increases the likelihood of emotional or behavioral problems and carrying weapons (Martin, Gordon, Kupersmidt 1995). In addition, research has found that children exposed to violence have a higher prevalence of depression and anxiety and low levels of social competence.

Housing

Many migrant families live in substandard housing that at times lacks basic services. Poor housing quality and overcrowding can increase the transmission of such diseases as tuberculosis and influenza. Migrant families, in an attempt to reduce expenses for housing and childcare, will share housing with other family members and friends. The Housing Assistance Council (HAC) (2001) found that 52 percent of migrant workers were living in overcrowded housing, according to a standard set by the federal government. Of those households living in crowded units, 74 percent of the families reported having children. The HAC report notes the contrast in the results from the American Housing Survey, which found that only 3 percent of U.S. households were living in crowded dwellings. According to the HAC study, the overcrowded housing is most prevalent in the western stream, which includes California. These findings are supported by other research efforts. Villarejo and others (2001) note that the California Agricultural Workers Health Survey in 2001 found that 42 percent of the respondents shared dwellings with at least one other household.

Among the typical conditions are the sharing of the kitchen and bathroom in dormitory-style housing. Sharing kitchen space may prevent adequate and safe preparation and cooking of foods. The HAC study also found that while most migrant workers living in the eastern stream had adequate kitchen facilities, 22 percent of the bathrooms had broken toilets or showers. A side effect of a crowded dwelling is the inability of many farm workers to take showers or to wash their clothing after a day of toiling in the fields. Because migrant families are particularly predisposed to pesticide exposure, providing adequate opportunities to clean themselves and their clothes is imperative. Moreover, as HAC found, more than one quarter of the dwellings surveyed were adjacent to pesticide-treated fields. Compounding the proximity to pesticide spraying is that 53 percent of the dwellings lacked adequate bathing facilities, laundry machines, or both. HAC also found that many dwellings for migrant families did not meet structural standards. Peeling paint was common, creating the threat of lead exposure for children. More serious structural defects, such as sagging roofs, porches, or framing, were found in 22 percent of the dwellings surveyed. In addition, 17 percent lacked indoor plumbing, and 16 percent had serious structural problems (HAC 2001).

Nutrition

Despite the relative abundance of information on nutrition in schools and through various government and social services, the research demonstrates the discrepancy between the knowledge of good nutrition and the use of those guidelines among migrant children and their families. Studies have shown that inadequate nutrition stunts

the growth and development of children and increases the risk of illness. Migrant children have been found to suffer from conditions normally seen in developing countries. For example, stunting was found in 10.5 percent of migrant children (Markowitz and Cosminsky 2003). In a separate study Markowitz found evidence of stunting among migrant children in summer camps and further evidence of chronic illnesses, such as asthma (Markowitz and Cosminsky 2005).

Aside from the evidence of stunting in migrant children, other findings suggest that migrant children cluster at the extreme of the health status spectrum. Evidence suggests, for example, that 22.8 percent of migrant children were at risk of obesity, and 22.3 percent were actually obese (Markowitz and Cosminsky 2003). Critical to these findings is the selection of foods. A study of Latino children in Minnesota found that lack of money prohibited parents from providing adequate nutrition, despite their knowledge regarding proper nutrition. A follow-up study by Fishman, Pearson, and Reicks (1999) found that the knowledge about nutrition was low among migrant children, who also had difficulty in identifying the traits of a healthy individual. The authors found elevated levels of purchases of fatty foods and sweets among preteen migrant children. Researchers also found that migrants' diets consisted primarily of traditional foods, such as rice, beans, and tortillas, but also included such foods as pizza that become more common with assimilation.

Oral Health

Untreated dental caries cause pain and suffering for children, particularly because untreated conditions often require more extensive care when it is finally delivered. The lack of early and regular oral care for poor children also causes poor nutrition, school absences, and an overall decrease in social functioning. Associated with the lack of dental care are the early diagnosis and treatment for congenital anomalies, such as cleft lip and palate, which when left untreated cause speech and other disabilities detrimental to social and emotional development and learning.

Studies on the overall health needs of migrant children show that oral health ranks among the top five health problems. A study by Dever (1991) found that for school-aged migrant children, oral health needs rank highest among all health needs. Other studies have demonstrated that the needs more often transcend into adulthood and tend to be of greater severity compared with those of the general population (Koday, Rosenstein, and Lopez 1990). Early childhood caries (ECC), recognized by the CDC as a serious condition, has been found to be prevalent among low-income children for whom preventive care is not readily available or affordable. ECC has been linked to severe pain, chewing difficulties, speech delay, and low self-esteem (Ramos-Gomez and others 1999).

A major contributor to the poor oral health of migrant children is the lack of preventive care (Entwistle and Swanson 1989). Emergency care, often the only source of health care for that group, rarely, if ever, contains provisions for follow-up prevention efforts. As a result, prevention is an element of the care that migrant families do not commonly receive. As studies have demonstrated, when services are accessible, affordable, and

culturally appropriate, migrant families will use preventive and restorative services in spite of structural barriers, such as limited transportation (Koday, Rosenstein, and Lopez 1990; Woolfolk and others 1984).

Timely and Appropriate Immunizations

As with other preventive care, immunization of children from serious and debilitating diseases is a cornerstone of modern medicine. Outbreaks of preventable diseases in school-aged children occur almost exclusively in poor and immigrant communities. The outbreak of measles in Dade County, Florida, in 1983 highlights the low levels of immunization among migrant children. Of the 93 measles cases, 87 occurred among migrant families, with 21 of them occurring in families living in migrant-worker camps. Seventy-one of the Dade County measles cases were children under the age of five (CDC 1983). Subsequent evaluation found that of the 985 people living in the migrant camp, 317 lacked the age-appropriate immunization. A study of migrant children in South Carolina found that common immunizations were administered from 9 to 32 months late, leaving children, particularly young children, vulnerable to preventable diseases during susceptible ages. Despite these findings, research on the immunization of migrant children is scarce.

Injury Prevention

According to Evans (2004), significant differences in the attentiveness of parents can be attributed to the family's socioeconomic status. Nearly twice as many working-class parents, for example, reported that they were unable to locate their child in the neighborhood when they needed to. Implicit in the finding is that children of working-class parents not only are supervised more liberally but also, as a consequence, those children are more likely to encounter unintended injuries, violence, exposure to drugs and alcohol, and other antisocial behaviors. Working-class parents know fewer of their children's friends than professional-class parents do.

In the United States, agricultural work is exempt from child labor laws, and few protections exist for children who toil in the fields. Children and adolescent farm workers are exposed to pesticides and to unguarded, unsafe machinery that they are not trained to operate safely. Serious work-related injuries have also been observed in adolescent farm workers, who are estimated to be from 5 to 10 percent of all farm workers. However, because adolescent farm workers are not involved in many, if any, established educational or assistance programs, estimates of their numbers are unreliable. Many of these youths travel without a parent or guardian. The income is dismal for adolescent farm workers who often lack formal education past the primary grades. Adolescents have exacerbated health needs because their rates for using health care are low during a time of significant physical and emotional development (U.S. Department of Labor 2005).

MEP Regional Assistance

While some may argue that health services is an issue to be discussed and addressed at the federal and state levels, the cost and enormity of the problems have not prevented MEP regions from doing what they can to assist migrant families. Most, if not all, MEP regions have resources for assistance or referrals to help migrant families have access to and pay for emergency or health services needed immediately. The MEP may not be best-suited to provide those services, but it is more likely to be adept at coordinating health services for migrant families.

The MEP may be able to leverage its relationship with migrant families to ensure that (1) timely immunizations occur; (2) dental care is provided; (3) child development is central to the health of families and children; and (4) health education is accessible, and equally important, is culturally and linguistically appropriate.

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Research on the Importance of Algebra in Academic Achievement

The Advisory Committee and work groups were concerned that migrant students may not be prepared for success in mathematics when they enter school and may not succeed in mathematics at the same rates as other students do. Data gathered during the needs assessment indicated that while many parents appreciate the importance of mathematics and algebra, migrant students are not performing at the same levels as other students are.

Robert Moses, a civil-rights activist and mathematician, argues that algebra, “once solely in place as the gatekeeper for higher mathematics and the priesthood who gained access to it, now is the gatekeeper for citizenship; and people who don’t have it are like the people who couldn’t read and write in the Industrial Age” (Moses and Cobb 2000). Research during the last decade has indicated that early enrollment in algebra in particular can affect students’ enrollment in and successful completion of college.

The highlights of research in two key areas are (1) what contributes to student success in algebra; and (2) how success in algebra affects postsecondary enrollment and completion.

The Importance of Algebra for Postsecondary Education

Research cited by the U.S. Department of Education indicates that “students who enroll in algebra or a foreign language during the eighth grade are more likely to pursue a four-year postsecondary education at the end of high school. This is true regardless of the level of mathematics or foreign language attained by these students” (U.S.

Department of Education, 1997). The impact of early enrollment in algebra is even greater for low-income students. “Low-income students who took Algebra I and geometry were three times as likely to go to college as those who did not. When low-income students take rigorous courses, income effects on college entrance rates diminish greatly, although they do not disappear” (U.S. Department of Education, 1997). And finally, research has also shown that “within a high school curriculum, the higher the level of mathematics studied, the stronger the effect on college degree completion. Finishing a course beyond Algebra 2 more than doubles college completion of a bachelor’s degree” (Singham 2003).

As the importance of completion of algebra is better understood, research has expanded to explore the foundations necessary for students to be successful in algebra.

Foundations for Student Success in Algebra

Research is currently under way to identify the factors that contribute to student success in mathematics generally. Two aspects that might affect migrant students are the level of number sense that children have when they enter kindergarten and the role of language in acquiring mathematical knowledge.

Jordan (2007) found in a recent study that low-income children were more likely to come to kindergarten with weaker skills in number sense than those of middle- or high-income children. The majority of low-income students gained few of those skills in kindergarten and first grade. Number sense involves abilities related to counting and number patterns, among other aspects. Jordan’s research followed a diverse group of students from kindergarten through elementary school in a large Delaware school district. Jordan states that “a small but growing body of research indicates that kindergarten number sense is highly predictive of later mathematics achievement.”

In a study of middle school English learners (ELs) and non-ELs performing on mathematics tests, Lager (2007) found that English learners were hindered by the demands of mathematical language. Lager found that students need both a command of English and a specialized mathematical language to fully access the mathematics curriculum.

Preliminary Conclusions

As the educational demands of occupations in the United States increase, more schools and districts are making algebra part of the eighth grade curriculum. The California Department of Education is working to increase the number of students enrolled in algebra in the eighth grade across the state. Data from the CNA indicate that fewer migrant students are taking algebra in the eighth grade compared with all students in the state. Of those who do take it, barely half as many migrant students score proficient on the CST algebra test compared with the scores of all students. CST data also indicate that 37 percent of the migrant students in the ninth grade are taking the general mathematics test. This number indicates that at least that many students are one and

possibly two years below grade level. (See Chapter 3 for the complete results of the CNA data gathered.)

The preceding research is not sufficient to guide recommendations or solutions for the migrant program. Nevertheless, the data and initial research indicate a need for an increase in the percentage of migrant students taking algebra in the eighth grade and an increase in the number of students successfully completing algebra and other mathematics courses.

The Advisory Committee suggested that both migrant staff and parents could be stronger advocates to ensure that students are placed in algebra when they qualify and that the migrant program emphasizes academic support in mathematics, both in elementary and middle school, to increase participation and successful completion of algebra and higher-level mathematics. More investigation is needed to determine which types of academic support or intervention are having the greatest success and which interventions will be the most effective with migrant students.

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Research on Migrant Out-of-School Youth

Little research has been found that directly relates to migrant OSY. What has been found is presented here and ranges from a description of what California migrant education regions are doing to strengthen research to two papers that describe problems and possible solutions for all young adults (not just migrant OSY) who have not completed high school. It is the hope that by discussing what does or does not exist in the way of research, educators can do more to strengthen this area.

Description of the Findings

As discussed earlier in this report, there is a need to find ways to assist and support migrant OSY in continuing their education. As stated by one Migrant Education Region 1 program staff member, “Students ages 19 to 21 who have not graduated from high

school and who are not enrolled in an accredited educational program, like their school-age counterparts, become invisible to the community and the school systems where they reside. Their needs are often ignored or not adequately addressed, principally because there is a lack of organized assessment and data collection.” An important role of migrant education is to ensure that migrant OSY are identified and that their needs are assessed and addressed.

There is now a uniform assessment instrument that the MEPs in California have informally agreed to use, and there are discussions about having a state database to collect information gathered from this assessment form.

One of the recommendations from this CNA process is that the State Migrant Education Office require that all migrant education regions interview each migrant OSY by using this form when they complete a certificate of enrollment on each OSY in their region. In addition, the State Migrant Education Office should establish a statewide database to collect information from this statewide form.

Continuity of instruction for migrant OSY is crucial for many reasons that relate not only to those youth but to society as a whole. According to *Engaging Out-of-School Youth* (School and Main Institute 2003), “Designing services for out-of-school youth—especially older youth—is extremely challenging. And we have much to learn about what works and what doesn’t.” The report continues, “However, out-of-school youth are very much in focus these days. It’s estimated that the current high school dropouts costs the U.S. \$88 billion in lost earnings potential each year. Dropout-related crime costs another estimated \$32 billion.”

In *Connected by 25: Improving the Life Chances of the Country’s Most Vulnerable 14- to 24-Year-Olds* (Wald and Martinez 2003), the authors state, “While a major focus should be on working with youth under 18 at the point that they begin disconnecting, there also should be a much stronger commitment to helping young adults, 18 to 24 who are experiencing major problems connecting with the labor force.” The report continues, “At present, many services designed to help children, including free education, terminate when youth reach 18. Some programs, such as job training, are available to those seeking them out, but these are limited. Moreover, no systems or government agencies, like schools and child welfare agencies, are responsible for helping young adults experiencing difficulty in making the transition to adulthood. Since the transition to independent adulthood rarely occurs at 18, we need to create, at the local, state and national levels, young adult systems of support.”

Need for Resources

California MEPs have started to address this need, but the resources allocated do not match the number of OSY that have been identified. Some migrant education regions are putting resources into this group, but many are either not addressing the issue or not doing so to the extent needed. Within the MEP there needs to be a more systemic approach to identifying and serving these youth. This approach would include linking them to existing nonmigrant resources (e.g., adult education programs, community

colleges, federal workforce programs) and developing new strategies where there are gaps in services, such as providing advocates and mentors. The training packet produced by the School and Main Institute describes staff as doing “proactive outreach.” It states that “out-of-school youth usually do not sign up for services in the first place, or after they are in the door, they do not advocate for themselves.”

You need to go to them physically, emotionally, and repeatedly. There’s no statistic on this but it seems fair to estimate that a youth worker supporting high-risk or out-of-school youth will put in as least twice as many calls, e-mails, and visits to manage the relationships.

The report asserts, “It is true now as it always has been: the support young people value most is the person who got to know them and who challenged them.”

High Dropout Rates

In addition, Wald and Martinez suggest that “Hispanics are far more likely than non-Hispanic whites or African Americans to drop out of schools. However, this is basically due to the very high dropout rate among Hispanic immigrants, many of whom never entered a U.S. school and must be considered separately for policy purposes; 69 percent of Hispanic dropouts are immigrants. The dropout rate of native-born Hispanics is about the same as that of African Americans, approximately double that of non-Hispanic whites.” The majority of migrant OSY are Hispanic and match this description. Also, some of the MEPs that serve migrant OSY have different strategies for serving those who have dropped out of school and those who are here to work. This awareness is important, and the State Migrant Education Office should encourage providing services to both groups of OSY.

As stated by Wald and Martinez, “But programs are not enough. There needs to be a system that has responsibility for reaching out to those not making it, with adequate dedicated resources, in the same way that resources are provided for youth attending college. Over the past twenty-five years the situation for youth who fall off the ladder as they move to adulthood has gotten considerably worse. Education has become more important. The consequences for misbehavior have become more severe.” The report continues: “During this period (from 1982 to 2002), there was increased recognition of the critical importance of early childhood and a substantial increase in the resources devoted to children under five. There needs to be a similar revolution in how we think about older children and young adults—for their sake.”

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Chapter 5

Next Steps and Implementation

The research review presented in Chapter 4 validates some of the concerns and recommendations of the Advisory Committee and work groups, but it also points to questions that remain unanswered. This chapter outlines a possible strategy that combines extensive field experience with migrant education and current and relevant research. This combination can help provide guidance for the statewide MEP. The chapter also outlines a data collection process to further capture the needs of migrant students.

To advance the state MEP so that it continues to direct its program toward the documented needs of students, the committee members and work groups suggest convening experts in migrant education and content areas, along with increasing the capacity of data collection at various levels.

Expert Groups

Effective practice is enhanced when the knowledge of practitioners and from research is integrated. Both inform each other. With an eye on distilling the best of both worlds with respect to understanding the migrant experience and developing solutions that remove the major barriers to school success, the committee and work groups recommend the formation of a Solutions Team comprised of experts in migrant programs and experts on curriculum. The joint work of the Solutions Team would be to analyze the issues and concerns that the advisory group has raised and to tailor solutions that are research-based but that take into account migrant students' specific characteristics. The selection of members for this group would need to be developed along with a specific timeline for deliberations and results.

One fruitful area of discussion among this group is common problems in implementing known solutions. A sample of these implementation issues gleaned from advisory group discussions follows:

- Several well-designed interventions are available and used, such as the PASS Program, to address the problems that migrant students frequently have with high school credit accrual. However, some school boards will not give credits for courses from these programs. Thus, to implement this solution and for migrant students to benefit from this program, expertise is needed not only in evaluating distance learning programs but also in understanding the formulation of school board policies and in developing strategies to address the concerns of board members.
- Migrant students, like all other students, benefit greatly from a high school program that meets the a-g requirements for California college admissions. One of the solutions considered in the advisory discussions was early identification of whether students were on track for meeting these college requirements. However, one of the major barriers to helping students and families focus on this goal is enabling them to

see college attendance as a real possibility. All parents want their children to succeed in school and in life, but the aspirations of upward mobility must be integrated with the cultural norms and practices of students and their families. Families with tight economic interdependence, such as those with high school students who contribute to the family income, are concerned about their children moving away from home, off to college. Expertise is needed in culturally sensitive goal-setting and in identifying resources for college, along with a deep understanding of the economic realities of migrant families.

- Parents as student advocates has been a long-standing position held by the migrant education programs across the state. Parent training models have evolved over the years and often include a sophisticated array of empowerment strategies. Yet, one of the growing concerns expressed among the advisory members is that these training sessions are being accessed only by the parents who ordinarily attend school meetings. The most marginalized parents, those who have the most to gain, are often not served. Thus, a key barrier is not program design, but one of recruitment. What is needed here is community outreach expertise, perhaps from other sectors outside education, such as community health programs.

From the preceding examples, it is clear that tackling these issues is not simply a matter of tapping the academic community. It also means involving multisector partners who can share experiences and strategies that have worked within similar communities. When these teams are assembled, what is needed is relevant yet diverse expertise, fresh perspectives, structured processes, and sufficient time to blend these areas of expertise so that solutions implemented by migrant programs can be optimally effective, and the needs of migrant students can be met.

Specific Recommendations for Efforts to Collect Data

A simple solution to reduce the obstacles encountered by the CNA (and undoubtedly other research efforts) with respect to data is to include a migrant identifier in statewide and school- and district-level efforts to collect data. Concurrent efforts to identify former migrant students would contribute to the long-term provision of service to and monitoring of migrant students. This effort may prove difficult to implement given the myriad of data collection and reporting requirements already in place.

Of larger importance, however, is the need for centralization of basic, yet critical, statistics that are already collected on every student in the public school system, such as attendance data. Data aggregation could greatly affect monitoring student progress and identifying students who are underserved or academically at risk.

A more daunting need is to improve migrant regions' capacity for a statewide data aggregation system or mechanism through the use of standard forms and protocols. In documenting the needs of migrant out-of-school youth, the team encountered incomplete and irreconcilable data collection efforts across regions, few formal documentation efforts, and inconsistent data management. The adoption by all regions of a uniform and comprehensive protocol for servicing migrant OSY, in conjunction with a statewide data collection system, would allow for more meaningful and lasting contact

with migrant OSY, among other high-risk populations, plus the ability to conduct statewide reviews and analyses.

As an intermediary step, data collection on migrant students can be coordinated through the regional data liaisons (RDLs) used to collect student-level data on two CNA concern statements. The RDLs proved invaluable in collecting student-level data, because they were able to communicate effectively with schools and school districts, to monitor their progress, and to offer assistance in gathering the requested data. The RDLs were able to gather data for the a-g course completion and the high school mathematics items in the CAHSEE. To be effective and maximize their efficacy, RDLs should be equipped with adequate tools. For example, the RDLs should use uniform data gathering tools or procedures, such as a standard set of queries, to guide schools and districts in gathering information on migrant students. Also, the RDLs should focus in the short term on building partnerships with district and school personnel who are familiar with and authorized to produce data reports to document and monitor the services provided to migrant students.