| AUTHOR | Gonzalez, Josue M.; Szecsy, Elsie M. |
| :---: | :---: |
| TITLE | The Condition of Hispanic Education in Arizona, 2002. |
| INSTITUTION | Arizona State Univ., Tempe. |
| SPONS AGENCY | Kellogg Foundation, Battle Creek, MI. |
| PUB DATE | 2002-00-00 |
| NOTE | 45p.; Produced by the Southwest Center for Education Equity and Language Diversity. |
| AVAILABLE FROM | Southwest Center for Education Equity and Language Diversity, College of Education, P. O. Box 871511, Arizona State University, Tempe, AZ 85287-1511. Tel: 480-965-7134; Fax: 480-965-1511; Web site: http://www.asu.edu/educ/sceed. |
| PUB TYPE | Reports - Research (143) |
| EDRS PRICE | EDRS Price MF01/PC02 Plus Postage. |
| DESCRIPTORS | Dropout Rate; Educational Assessment; *Educational <br> Attainment; Elementary Secondary Education; Graduation; <br> Higher Education; *Hispanic American Students; Literacy; Low <br> Achievement; Population Trends |
| IDENTIFIERS | *Achievement Gap; *Arizona; National Assessment of Educational Progress; Stanford Achievement Tests |


#### Abstract

This report focuses on the education of Latinos in Arizona, offering a global overview of the complex, multifaceted problems that contribute to the generalized disenfranchisement of this group. Data portray the current status of the education of Arizona's preK-16 Hispanics. The report is based on longitudinal and comparative and disaggregated student performance data from the National Assessment of Educational Progress, the Arizona Instrument to Measure Standards, and the Stanford Achievement Test, ninth edition; high school dropout and graduation rate statistics; college graduation rate and faculty demographics from three Arizona universities; and educational attainment levels of Hispanic adults from the U.S. Census. Results indicate that Arizona's Hispanic population is growing dramatically. Between 1990-2000, there was a downward trend in the percentage of Hispanic students who scored better than "below basic" in reading, writing, mathematics, and science. Hispanics failed to achieve "at or above basic" at about twice the rate of non-Hispanic white students. In 2000 , a little more than half of Arizona's Hispanics over age 17 years had completed high school. In 2000-2001, nearly 45 percent of all Arizona high school dropouts were Hispanic. In 2000, fewer than 6 percent of Arizona's Hispanics had a Bachelor's degree or higher. In 2000-2001, 31 percent of $7-12$ public school students, 19 percent of community college students, but only 11 percent of students in Arizona's public universities were Hispanic. (Contains 38 references.) (SM)


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- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

E.Szecsy

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- Latinos in Elementary and Middle School
- Latinos in High School
- Latinos in College
prepared by
Josué M. González and Elsie M. Szecsy


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## Executive Summary

This data sourcebook is unique. It focuses exclusively on the education of Latinos in Arizona. This resource gives a global overview of an important part of the complex and multi-faceted problems that contribute to the generalized disenfranchisement of this important segment of the population of our state. The data assembled here portray the current status of the education of Arizona Hispanics from preschool to, and through, the university level ( $\mathrm{P}-16$ ). It brings together, in one concise volume, the latest information available about this group and its current educational status. This audience includes families, school people, education advocacy groups, com-munity-based organizations, and interested members of the broader community.

The primary audience of this report is the educational "end-user" who wants to understand the problems behind the numbers, and who wants to become engaged in finding ways to make things better. Its purpose is to show how Latino children and youth are faring educationally in comparison with other subgroups and with themselves over time. The sourcebook is grounded on the assumption that by improving things for this important segment of our community, the whole state will benefit from the investment.

This first edition of what we envision to be a renewable and expanding sourcebook, is based on longitudinal and comparative and disaggregated student performance data by Arizona students on the National Assessment of Educational Progress (NAEP), the Arizona Instrument to Measure Standards (AIMS), and the Stanford Achievement Test, ninth edition (SAT-9); high school dropout and graduation rate statistics, as reported by the Arizona Department of Education; college graduation rate and faculty demographics statistics from Arizona State University, Northern Arizona University, and the University of Arizona; and educational attainment levels of Latino adults over age 18, as reported by the U.S. Census. Among the findings are:

- The Latino population in Arizona is growing dramatically. Between 1990 and 2000, the Latino population grew an average $8.8 \%$ per year. This trend is projected to continue in the coming decades.
- On the NAEP Assessments in Reading, Writing, Mathematics and Science, administered between 1990 and 2000, there was a downward trend in the percentage of Hispanic children who score better than "below basic," a trend that was not evident for Arizona's non-Hispanic White children.
- Latino children failed to achieve "at or above basic" at about twice the proportion of non-HispanicWhite children on the NAEP Assessments administered between 1990 and 2000.
- In 2001, non-HispanicWhite and Asian third, fifth, and eighth graders predominated at the upper end ("meets" or "exceeds" the standard) of the scale on the AIMS assessments. Hispanic and other children of color predominated at the lower end ("falls far below" or "approaches" the standard) of the scale.
- Overall, Latino third, fifth, and eighth grade students performed at the lower end (low to below average) of the scale on the Spring 2001 administration of the SAT-9.
- In 2000, a little more than half of Latinos in Arizona, age 18 or older, had completed high school.
- In 2000-2001, nearly 45\% of all high school dropouts in Arizona were Latino, while Latinos were only $31.6 \%$ of the total student population in grades 7-12.
- Thirty-two percent of Latino students who started high school in 1996 did not graduate in 2000.
- In 2000, less than $6 \%$ of Latinos in Arizona, age 18 or older, have a Bachelor's degree or higher.
- In 2000/2001 31\% of grade 7-12 students in Arizona were Latinos. Nineteen percent of community college students were Latinos, but only eleven percent of the students in Arizona's public universities were Latinos.

The report urges all stakeholders in Arizona's economic future to find new ways to work together toward improving education for Latinos, the fastest growing and largest group in Arizona. Included is discussion of the need for comprehensive, broad-based approaches to educational improvement for Latino students and their families - ones that include everyone and coordinate multiplestrategies, rather than relying strictly on a single special program or intervention that focuses on only a part of the problem. An example of this is the Metro Phoenix ENLACE
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school dropouts in Ari-
zona were Lacino, while

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Of the qotal student popu-
lation, in grades 7-12.
partnership, a new program that employs a multidisciplinary approach to strengthen the educational pipeline. Metro Phoenix ENLACE and similar programs include $\mathrm{K}-12$, higher education, community-based, and corporate partners, who work together to ensure that greater numbers of Latino students achieve, stay in school, graduate from college, and enter professions such as teaching, nursing, social work, and public administration.

As the numbers of Hispanic students grow in the coming decades, so also does their overrepresentation among those poorly prepared for the educational challenges of high school and college promise to grow, unless action is taken to stem this trend. The situation with respect to the education of Hispanics of all ages is desperate. The price of ignoring the problem will be high. We hope this report will help us all recognize the need to move expeditiously.

## Introduction

This data sourcebook is the only one of its kind in Arizona dealing exclusively with the education of Latinos in the state. We have attempted to create a resource that gives a global overview of an important part of the complex and multi-faceted problems that contribute to the generalized disenfranchisement of this segment of the state's population. The data assembled here portray the current status of the education of Hispanics in Arizona, from preschool to, and through, the university level (P-16). It brings together, in one concise volume, the latest data available about the current educational status of this group. Some of the data are well known while others are relatively new - having just been extracted from the U.S. census of 2000. The data on student attainment and performance were drawn from the National Assessment of Educational Progress (NAEP), from early administrations of Arizona's Instrument to Measure Standards (AIMS), and from the Stanford Achievement Test (SAT-9) program. The Arizona Department of Education was generous in providing student academic-performance data and data on high-school dropouts. From Arizona State University comes data on college-graduation and Hispanic participation in professional educational leadership in Arizona's public colleges and universities.

While the data contained here may be useful to many groups and audiences, the report is intended for the education "end-user" who is disquieted by the problems behind the numbers, and who wants to become engaged in finding ways to make things better. This "enduser" category includes families, school people, education-advocacy groups, community-based organizations, and interested members of the broader community. We embrace the premise that easy access to good data empowers individuals and groups in becoming better advocates for change. This sourcebook attempts to present data and to explain their possible meaning in lay terms. It is not, therefore, a mere compilation of statistics for data professionals. In this way, we hope to provide Latino parents, educators, and community groups with the informational grounding to support their efforts to improve the educational system for Hispanic children and youth. Finally, we hope policy makers in education will also find serviceable uses for the data we have assembled here.

By assembling these important data in one source, we are hoping to help put all stakeholders-Latino families, education professionals, and the broader community-"on the same page" in considering four important topics that are the components of a well-educated community. We see this community as one that is able to prosper and, by so doing, contribute in important ways to the state in which its members live and work. This sourcebook provides data on:

- Latino Demographics in Arizona
- Literacy: The Key to Learning
- High School Graduation: The Gateway to Contributing Adulthood
- Going to College: The Pathway to a Career, Civic Participation, and Service to Communities

The data we collected touches on many aspects of the more general problems. But, there is much more we need to know that is not yet available. We were more than a little surprised at the difficulty of finding good data about this group, given its importance to the state and the region. In subsequent editions of this sourcebook, we hope to include additional indicators.

The primary purpose of this report is to show how Latino children and youth are faring educationally compared with other subgroups and with themselves, over time. We hope, in this way, to contribute to the ongoing conversation of how our state can do better in this arena. We start with the assumption that, by improving things for this important segment of our community, the whole state will benefit from the investment. We agree with our colleagues who published the recent report, "FiveShoesWaiting to Drop on Arizona," (Morrison Institute for Public Policy, 2001) that this is not a problem that can be dealt with in isolation from the others. It is an essential component in moving our state more into prominence in the $21^{\text {st }}$ century.

In promoting sound policy conversations, it is inevitable that critiques and criticisms will surface that concern the "flawed" educational system in our state. There will be different views about how it can be improved. That discussion and the various proposals for bringing about such improvements is not the primary subject of this report, although we hope that accurate data will contribute to the quality and
productiveness of those conversations. Similarly, we have not sought to delve into the various problems associated with counting and measuring; for example, how to count dropouts. Using whatever method, we believe the count of young people who have left school is much too high. It is the impact and significance of those numbers that concern us here. Nothing short of the social and economic future of our state is at stake if we do not stop the hemorrhaging of young lives from the classroom onto the roster of the undereducated. Finally, we tried to not fix blame for the educational inequities that exist in Arizona. We limited ourselves to pointing out that the entire community, i.e., all sectors of the state, must be involved in resolving the problems suggested by these data.

We believe that a comprehensive source of pertinent data is an important first step toward finding the real roots of the problem at hand. Through this report, we hope to begin the task of building a permanent and renewable database of information concerning these students.

For a community (or a state) to become adequately educated is to assemble the building blocks for a viable future. A recent Wall Street Journal article (2002) reports, "According to the Census Bureau, highschool dropouts do more than just damage their employment and earning potential. They're also much likelier to wind up on public assistance, either as single parents (women) or incarcerated (men)... The data show that college graduates tend to live longer and healthier lives than those who end their education in high school. On average, college grads read more, volunteer more, vote in greater numbers and produce offspring who themselves do better in school than children of parents without college. Over a lifetime, the college graduate will earn an estimated $\$ 1.6$ million - nearly double the estimate for highschool graduates. Since 1975, the earnings of most high school dropouts haven't even kept pace with inflation." Ensuring an adequately educated populace is in any community's self-interest. Only in this way can we ensure a civil society and engaged, healthy, self-sustaining communities.

It is critically important to Arizona that Latinos - the largest and fastest-growing segment of its population - achieve a better education and attend college in greater numbers than they do now. This must be accomplished if Arizona is to be better positioned to compete in the market-

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segment of its popula-
tion - achieve a better
education and attend
college in greater num-
bers than they do now.
place. A well-educated populace is the most important resource to attract and retain business and industry. At the moment, Arizona's educational system is not functioning at full capacity. Our public schools are among the most poorly financed in the nation. Our children also drop out of school at rates that far exceed those of other states. That our children are not achieving in school is of concern, because itjeopardizes their ability to prepare for college, to pursue a career that will enable them to participate fully in the broader community, and to help our state participate more fully in the global marketplace.

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## Latino Demographics in Arizona

The Latino population in Arizona is a substantial and important portion of the state's total population. Latinos are concentrated in greatest numbers in the southern half of the state and live in greatest numbers in the more densely populated Maricopa County (Figure 1), where Phoenix ranks sixth of all cities in the U.S. in the size and percentage of its Latino population (U.S. Census, 2001). Now numbering over 1.29 million (U.S. Census, 2001), the Latino population has grown $88 \%$ since 1990 . The proportionate growth of the Latino population was most dramatic between 1990 and 2000 in largely rural Mohave County along the banks of the Colorado River (Figure 2).

Latinos in Arizona are younger, on average, than the general population. Thirty-eight percent of Latinos are under age 18 , as opposed to the $23 \%$ of nonHispanics who are under age 18 (U.S. Census, 2001). This difference, in conjunction with the slower growth rate in numbers of non-HispanicWhite children, is resulting in the increasing proportion of Latino students in Arizona schools. Some Latinos are recent immigrants learning English; others are children born in the U.S. of parents who were born in Mexico or other Latin American countries. Some come from families who have lived in

Figure 1
Hispanic population as a percentage of total
population, by county, 2000 population, by county, 2000


Figure 2
Percent Changes, 1990-2000, Hispanic population, by county


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average, than the
general population. .:
This difference. . is
resulting in the
increasing proportion of
Latino students in
Arizona schools.

## Arizona schools:

Arizona or other regions in the Southwest for generations. Most have Mexican origins. Of those who are recent immigrants, some may have had formal schooling in their country of origin, but many do not. Secondgeneration Americans of Latino descent may also be first in their family to aspire to attend college. In this version of the report, we do not include data on these aspects because none are available at this time. The Latino or Hispanic population is a varied group with distinct characteristics and for which no single strategy or intervention will result in improvement in educational attainment. While it is possible to draw subtle distinctions between Latino and Hispanic, we have elected to use these terms interchangeably.

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## Literacy: The Key to Learning

Basic literacy - the ability to read and write - is, perhaps, the single most important skill for success in school and in the workplace of the $21^{\text {st }}$ century. The research literature indicates that students who are unable to read by third grade are more likely to have difficulty in school, and, when they experience difficulty in school, are more likely to become truant, and ultimately drop out altogether. It is critical therefore, to focus attention on student performance on a variety of assessments: The poor performance of Latino youngsters in the early school years is a predictor of difficulties that usually occur in middle and high school, where less emphasis is placed on learning to read and more is placed on reading to learn.

To be literate in two languages is, of course, preferable to being literate in only one. However, in Arizona, educational standards for literacy demand that students perform satisfactorily on a number of assessments that measure literacy in English. There is little evidence that, as a state, we value literacy in Spanish. The message to parents and students alike is clear: Spanish literacy does not count. Demonstrating numerical literacy and scientific fluency is dependent on having an adequate level of English-language literacy, but the same development could occur in Spanish if we choose to view language as an asset rather than a liability. In this report, we focus on a number of instruments for which there were available data, by race and ethnicity. All of them were in English. We examine National Assessment of Educational Progress (NAEP) assessments; the Arizona Instrument to Measure Standards (AIMS) assessments, administered in grades 3, 5, and 8; and the Stanford Achievement Test (SAT-9), administered in Spring 2001, to Arizona students in grades 2-9.

## National Assessment of Education Progress (NAEP)

The National Assessment of Educational Progress ("The Nation's Report Card"), is a continuing project of the U.S. Department of Education, Office of Educational Research and Improvement. The stated purpose of NAEP is to measure the effectiveness of each state's educational program in comparison to that of other states and regions. Unlike reports on the Arizona Instrument to Measure Standards (AIMS) and the Stanford-9 (SAT-9), which include all students
in Arizona, NAEP Arizona assessment reports on a random sample of students from selected Arizona schools. It is on the basis of this sampling process that student performance is reported. Students may perform at NAEP levels "below basic," "basic," "proficient," or "advanced."

## Reading and Writing

According to the National Center for Education Statistics (U.S. Department of Education, 2001, 1999), in western states and nationally, the NAEP Reading Assessment showed Latino fourth graders performing worse in 1994 than in 1992, but they rebounded in 1998. In Arizona, however, Latino fourth graders' performance on the NAEP Reading Assessment continued to decline in 1998. These statistics do not include Spanishdominant fourth graders who were not tested either in Spanish or English (Table 1). With respect to Arizona students' performance on the NAEP Reading Assessment, we see a marked difference in the performance of Latino students when compared with non-Hispanic White students. Latino students scored "below basic" at nearly twice the rate of non-Hispanic White students. In addition, while non-Hispanic White students improved somewhat in 1998 from their performance in 1994, Latino students' performance levels continued to drop (Table 2). The results on the NAEP Writing Assessment are even more disheartening: Latino eighth-grade

Table 1
NAEP Reading Assessment, Grade 4 Percentages of Hispanic public-school students at "Below Basic" achievement levels, years 1992, 1994, \& 1998.


Source:
National Center for Education Statistics, National
Assessment of Educational Progress (NAEP), 1999
students scored "below basic" at nearly three times the rate of nonHispanic White eighth graders (Table 3).

## Mathematics

When we analyze Latino performance in the NAEP fourthgrade Mathematics Assessment, and compare it with the performance of the other groups mentioned in this report (i.e., Asian/ Pacific Islander, Black, American Indian, and non-Hispanic White) we find a similar pattern: Latino students are over-represented in
the "below basic" categories and are under-represented in the "at or above basic" categories. Although the scores in the NAEP Mathematics

Assessment at grades 4 and 8 show that Latino students have been improving, they continue to perform at "below basic" levels at over twice the rate of their non-Hispanic White counterparts (Table 4). As seen above in the NAEPWriting Assessment, this pattern between Latino and non-HispanicWhite students appears in the eighth-grade NAEP Mathematics Assessment as well (Table5).

## Science

Arizona's Latino students fare similarly on the fourth- and eightgrade NAEP Science Assessments.

Only 35\% of Latino fourth graders scored "at or above basic" in the 2000 NAEP Science Assessment, compared with over $75 \%$ of nonHispanic White students (Table 6). Only a third of Latino eight graders scored "at or above basic "in either the 1996 or the 2000 NAEP $8^{\text {th }}$ GradeScience Assessment. Over $70 \%$ of all non-HispanicWhite eighth graders in Arizona scored "at or above basic" in both Assessment years (Table7).

Across the board, Latino students compare unfavorably on two counts. First, we see a downward trend in the percentage of Hispanic children who score better than "below basic," a trend that is not

## Table 2

NAEP Reading Assessment, Grade 4
Percentages of Arizona Hispanic \& non-Hispanic White students at "Below Basic" achievement levels, years 1992, 1994, \& 1998.
$\square 1998 \square 1994.1992$


Source:
National Center for Education Statistics, Nationa Assessmem of Educational Progress (NAEP), 2001.

## Table 3

NAEP Writing Assessment, Grade 8
Arizona students performance for 1998.

$$
\text { Asian/Pacific Islander Black Hispanic American Indian } \square \text { White }
$$



## Source:

National Center for Education Statistics, National
Assessment of Educational Progress (NAEP), 2001.
evident for Arizona's non-HispanicWhite children. In addition, within their respective groups, Latino children fail to achieve this standard at about twice the proportion of non-

Table 4
NAEP Math Assessment, Grade 4
Arizona students performance for years 2000, 1996, \& 1992.


Source:
National Center for Education Statistics, Nationa/
Assessment of Educational Progress (NAEP), 2001

Table 5
NAEP Math Assessment, Grade 8
Arizona students performance for years 2000, 1996, 1992 \& 1990.

HispanicWhite children. Wefind that so many of our children are struggling to be troubling. Equally bothersome is that this faltering group is growing - at an average rate of $8.8 \%$ a year between 1990 and 2000. The patterns noted tell us that, as the numbers of these students continue to grow, Latino students, along with other students of color, will continue to be overrepresented among those poorly prepared for the coming educational challenges in high school and in college. Combined, these patterns indicate a need for quick and concentrated efforts to narrow the gap.


## Arizona's Instrument to Measure Standards (AIMS)

Plans for Arizona's Instrument to Measure Standards (AIMS) are to administer these measures to students in grades 3,5 , and 8 , as well as in high school. Among professional educators, AIMS is known as a


Table 6
NAEP Science Assessment, Grade 4
Arizona students performance for year 2000.


Source:
National Centerfor Education Statistics, Netional
Assessment of Educational Progress (NAEP), 2001

Table 7
NAEP Science Assessment, Grade 8
Arizona students performance for years 2000 and 1996.


Source:
National Centar for Education Statistics, National
Assessment of Eaucational Progress (NAEP), 2001.
criterion-referenced test:it measures a student's achievement against a set of standards set for the state. It is not a comparison with other states. Content areas tested through AIMS are reading, writing, and mathematics. The purpose of the AIMS Assessment is to measure the student's performance against the state's standards of performance expected in grades 3,5 , and 8 . AIMS exams are scheduled to be given during a testing "window," set by the state that normally begins at the end of April and ends at the beginning of May. AIMS assessments are also administered at the secondary level, but are not reported in this edition of the sourcebook because the program has not yet been fully implemented. In AIMS parlance, students may "fall far below," "approach," " meet," or " exceed" the standards set for each test.

## Reading

Latino students generally performed poorly compared to non-Hispanic White, Asian, Black and Native American students in the 2001 AIMS Reading Exams in Grades 3, 5 and 8. Third- and fifth-grade Latino stu-

Table 8
AlMS Reading Assessment, Grade 3
Arizona students performance for year 2001.


Source:
Arizona Department of Education, 2002.
dents "fall far below" the standard at approximately three times the rate of their non-Hispanic White peers. Third-grade

Latino students " met" the standard at approximately the same rate as non-HispanicWhite, Asian, and Black students (Table 8). However, across all grade levels, Latino students trailed non-Hispanic White students. Latino third graders "exceeded" standards at over half the rate (Table 8), fifth graders "exceeded" the standards at one-fourth the rate (Table 9), and eighth graders achieved at a third the rate of their non-HispanicWhite peers
(Table 10). These scores do not explain why these gaps and ranges exist. Neither do they offer a full accounting by racial or ethnic group, because not all students reported their race or ethnicity when they took the exam. Future administrations of AIMS may offer moreopportunities for explaining the disparities we have noted.

## Writing

From the results of the 2001 AIMS Writing Assessment, we found patterns similar to the AIMS reading portion. In third grade, $56 \%$ of Latino students "met" the Writing standard. Fifty-seven percent of Black, $64 \%$ of Asian, and $67 \%$ of nonHispanic White students (a 10\% gap), "met" the standards (Table 11). In the fifth grade, the gap between Latino students and others in "meeting" the standards widens, and the percentage of successful students was smaller. Only

Table 9
AIMS Reading Assessment, Grade 5
Arizona students performance for year 2001.


Source:
Arizona Department of Education. 2002.

Table 10
AIMS Reading Assessment, Grade 8
Arizona students performance for year 2001.


Source:
Anzona Department of Education, 2002.
$31 \%$ of Latino fifth graders "met" the standards, compared with $49 \%$ of non-HispanicWhite, $45 \%$ of Asian, and $35 \%$ of Black fifth graders (Table 12). Only single-digits of eighth graders "exceeded" the Writing standards of AIMS in 2001. In a classic example of accumulating deficits, we find that only 3\% of non-HispanicWhite, $7 \%$ of Asian, and $1 \%$ each of Black and Latino eighth graders "exceeded" the Writing standards. Less than one-quarter of Latino students (24\%) "met" the eighthgrade Writing standards, while three times that percentage (75\%) of Latino eighth graders "ap-

Table 11
AIMS Writing Assessment, Grade 3


Source:
Arizona Department of Education, 2002.

Table 12
AIMS Writing Assessment, Grade 5
Arizona students performance for years 2001.


Source:
Arizona Department of Education, 2002.
proached" or "fell far below" those standards (Table 13). Eighth graders in 2001 were prepared differently for the assessment when they were in third grade than were today's third graders. We look forward to seeing how the third graders of 2001 perform when they reach eighth grade and beyond. These students will face the high-school years with a decided inability to write. The avenue to failure-especially in the English language arts-is now being established.

## Mathematics

As was seen with the AIMS Reading and Writing sections, we again see a similar pattern in the 2001 AIMS Mathematics Assessment. Latino third, fifth, and eighth graders are over-represented in the lower range of scores and underrepresented in the higher range. Some $21 \%$ of Latino third grader students "fell far below" standard while only $7 \%$ of non-Hispanic White third graders performed at
that level. At the other end of the scale, $12 \%$ of Latino students "exceeded" the standard, as did $32 \%$ of non-HispanicWhite students (Table 14). At the fifth-grade level, $75 \%$ of Latino children "fell far below" or "approached" the standard, leaving only $25 \%$ who "met" or "exceeded" it (Table 15). In eighth grade, only $6 \%$ of Latino students "met" or "exceeded" the standard (Table 16). As with the Reading andWriting Assessments, the reasons for such poor performance among $8^{\text {th }}$ graders are difficult to pinpoint with accuracy.

Doubtless, there are several causes and effects at work here, not the least of which is that deficits of this type have a tendency to accumulate. They start building early and simply "snowball" as the children get older. An alternative explanation is that the schools have more trouble educating older students than they do younger ones for a variety of complex social reasons, or that students are simply becoming more frustrated. As we track the progress of younger children through the educational pipeline and as the instrumentation becomes more sophisticated, we may be better able to identify other reasons for the poor performance of eighth graders in 2001.

The patterns evident in the NAEP data are replicated in AIMS. No matter the assessment and regardless of the subject areareading, writing, science or math-ematics-non-HispanicWhite and Asian students predominate at the

Table 13
AIMS Writing Assessment, Grade 8
Arizona students performance for years 2001.


Source:
Arizona Department of Education, 2002.

Table 14
AIMS Mathematics Assessment, Grade 3
Arizona students performance for years 2001.


[^0]upper end of the scale. Dismally grouped at the lower end of the scale, we see Latino and other students of color, notably Native Americans and African Americans. There is no evidence that Latino and other students of color are less able or work less diligently at meeting the standards. The result, nonetheless, is that they do not ever catch up with their non-HispanicWhite and Asian counterparts who never have lagged behind. This race begins early and the distances seem to increasingly widen as the

Table 15
AlMS Mathematics Assessment, Grade 5
Arizona students performance for years 2001.


Source:
Arizona Department of Education, 2002.

Table 16
AIMS Mathematics Assessment, Grade 8
Arizona students performance for years 2001.

youngsters progress through the grades.

## Stanford Achievement Test, $\mathbf{9}^{\text {th }}$ Edition (SAT-9)

Among education professionals, the Stanford Achievement Test, Ninth Edition (SAT-9) is known as a norm-referenced test. It compares the performance of Arizona students to a national group that is presumed to be the "norm" for others of similar age and grade. These scores place an emphasis on percentile-rank scores. For example, a student scoring at the $90^{\text {th }}$ percentile is scoring equally or better than $90 \%$ of all other students taking the test. The Normal Curve Equivalent (NCE) is a statistical device that educators sometimes use. It aligns with the percentile ranges as follows:

## Source:

Arizona Department of Education, 2002.

Table 17
Percentile Rank and NCE Equivalent, \& Latino Student Performance, 1998-2001: SAT-9

| Below Average | NCE | Percentile Rank |
| :---: | :---: | :---: |
|  | 1.0-10.4 | <4 |
|  | 13.1-23.0 | 4-10 |
|  | 24.2-33.7 | 11-22 |
| Average | 34.4-44.1 | 23-39 |
|  | 44.7-54.8 | 40-59 |
|  | 55.3-64.9 | 60-76 |
| Above Average | 65.6-74.7 | 77-88 |
|  | 75.8-84.6 | 89-95 |
|  | 86.9-99.0 | >95 |

Source:
Arizona Department of Education, 2002

Latino students' results are concentrated at the lower end of the scale in the SAT-9. From the data available, we can also compare Latino students with each other. Categories of these students include the presence or absence of limited-English proficiency (LEP) and migrancy, in addition to national origin, i.e., being Latino or Hispanic. In this report, we use these terms interchangeably.

It is important to note here that, although we use the label Latino or Hispanic interchangeably, it makes a difference what "kind" of Latino the student is. Latino students can be generations removed from being a poverty-stricken non-speaker of English or being an immigrant. Such students often perform differently than do Latino students who are learning English, who are newcomers to the U.S., or who are both. Overall, and with few exceptions, Latino students literate in English performed better in the SAT-9 than did their Latino peers who were recent immigrants and were still in the process of learning English (Tables 18, 19 and 20). We should not be too optimistic about these distinctions at these grade levels. The highest level of performance by Latino students in the SAT-9 clustered in the lower half of the "average" range for all students, regardless of the command of English.

Research literature indicates that being limited-English proficient places Latino students at a disadvantage when taking tests that are written only in

English (Garcia, 2001). The data presented here tend to mirror that research. Nonetheless, Latino third graders demonstrated a slight improvement from 1998 to 2001 (Table 18). Performance among fifth graders, especially in Reading, dropped in 2001, and we see English learners continuing to struggle with developing English-language literacy (Table 19).

Finally,Latino English-language learners performed better than English-speaking Latinos in Reading, Mathematics and Language sections of the SAT-9 in 2001 (Table 20). This finding appears to run counter to the general trends of other data and is worthy of more indepth research.It is likely that some degree of literacy carries over fromSpanish into English for those students who are literate in the home language, but we found no data supporting this conclusion for Arizona Latinos.

Table 18
SAT-9 Normal Curve Equivalent (NCE), Grade 3
Derived from Hispanic, Hispanic LEP, Hispanic Migrant, \& Hispanic LEP Migrant status, for the years 1998 thru 2001.


Source:
Anzona Department of Education, 2002.
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Arizona Hispanic-student performance data, as reflected on scores in NAEP,AIMS, and SAT-9, indicate that Latino children enter high school at a marked disadvantage with respect to academic skills in English-language arts, science, and mathematics. From these data, we see that they face more difficulties than their nonHispanicWhite and Asian counterparts at excelling in high school. As the gaps widen and the academic deficits pile ever higher, young Latinos may elect to drop out of high school before graduation. In the next section, we examine dropout statistics.

Table 19
SAT-9 Normal Curve Equivalent (NCE), Grade 5 Derived from Hispanic, Hispanic LEP, Hispanic Migrant, \& Hispanic LEP Migrant status, for the years 1998 thru 2001.


Source:
Arizona Department of Education, 2002.

Table 20
SAT-9 Normal Curve Equivalent (NCE), Grade 8 Derived from Hispanic, Hispanic LEP, Hispanic Migrant, \& Hispanic LEP Migrant status, for the years 1998 thru 2001.


Source:
Arizona Department of Education, 2002.

## High School Graduation: The Gateway to Contributing Adulthood

High school offers the main gateway to higher education in the United States. Without a high-school diploma, it is difficult to attain a university education and to enter a professional field of endeavor. But completing high school is a serious challenge for students who enter high school with an inadequate preparation acquired in elementary and middle school. For them, it is even more difficult to meet the challenges of advanced subject matter like AP English, mathematics, or the sciences. For these students in Arizona, as in other states, there is little support to help them catch up. As one student put it, "You get so angry. [The teacher says] Why can't you guys keep up? They put it all on us. Read the material. But the students slip; they go lower and slower. Many teachers just pass them whether they learned anything or not. They don't want to really teach them or take the time to help in the first place." ("What they are saying," May 10,2002 ).

Too many Latino students fit this profile: Either they demonstrate partial understanding and can apply only some of the skills that are essential for good school work, or they show little evidence of the prerequisite skills to approach the standards that are
 set up for them by policy makers who have little understanding of what happens in school. Many Latinos and Latinas enter high school struggling to stay afloat academically and many require considerable help in the basic skills essential to handle challenging work at grade level. However, many also come to school ready to learn, butare uncomfortable about demonstrating what they already know or want to learn. Says one
student, "You know the answer, but you can't act too smart. People would look at you, wouldn't talk to you, say 'Go sit with the nerds.'" ("What they are saying," May 10, 2002). To hear the students tell it, there is little support for achieving, either from teachers or from peers.

## Latino Families and the High School Experience

An often-overlooked aspect of high school for adolescents is the existence, in the family, of social support and educational experience, that encourages teenagers to set and aspire to higher educational goals and, to even stay in school. Adolescents often look to peers and others as role models to emulate. Often, the parents have not been through high school and thus, cannot provide the role modeling and guidance that is needed. For many young Latinos, this pool of adult social support is rather limited, because both proportionally and in actual numbers, fewer Latino adults than non-Hispanic White adults have high-school diplomas. Peer pressures, on the other hand, are relentless. Consequently, many Latino parents are inexperienced with the complexities of American adolescent life, in general, and with the culture of high schools, in particular. Their children, who are in "the belly of the beast," need a powerful support system among family and community to help them negotiate the experiences of adolescence, American lifestyles, and high school. Often, they cannot get this support and their aspirations wither on the vine. One metroPhoenix student says: "I asked to be tutored after school and they told me to pay [more] attention in class. I had no friends. A lot of my friends already dropped out. They hate school" ("What they are saying," May 10,2002 ). For this group, dropping out is neither difficult nor traumatic.

Table 21
Percent of Arizona Hispanics who have completed high school


## Source:

U.S. Census Bureau, 2000
or this group, dropping out is
neither difficult mor trau-
matic.

In 2000, a little more than half the young Latinos in Arizona who were 18 years of age or older had completed high school (Table 21). Among non-Hispanic White adults 18 years old or more, nearly all had done so. This pattern is common in states where there are large concentrations of Latinos, such as California, Colorado, Florida, Illinois, NewYork, Pennsylvania, and Texas. Arizona follows the same pattern (Table 22). It should be noted, however, that this figure cannot be equated with a dropout rate of $50 \%$, since some of these young persons came to the U.S. without a high-school education and had never actually enrolled in a high school here. In the strictest sense, these persons cannot be considered to be dropouts since they were never enrolled in the first place. Nonetheless, these dropout rates are comparable to those of other disenfranchised groups: Native Americans, African Americans, and AppalachianWhites.

## Dropping Out

One method some Latino students use to escape the pressure brought about by being academically under-prepared and inability to get help from families that are under-experienced with American high schools, is to give up; i.e.,to drop out. Over the last seven years, the Latino dropout rate for Arizona high schools, has hovered at approximately twice that of non-HispanicWhite and Asian teenagers (Table 23). More than 32\%

Table 22
Percentage of Hispanics adults (over age 18) who have completed high school
Data from eight states, for year 1999 and 2000.


[^1]of Latino students who started high school in 1996 did not graduate in 2000 (Owin, 2002). Even under terrible odds and the distorting impact on statistics by immigration, roughly the same proportion of Hispanic young people is dropping out today as was true earlier. In the dropout data for the 2000/2001 school year, the Arizona Department of Education reported that there were 2,282 more Latino dropouts than there were nonHispanicWhite dropouts from
grades 7 through 12 in 2000/2001 (Table 22). As the number of Hispanics continues to grow and become an increasingly larger proportion of Arizona's population, the effects of the large dropout numbers are likely to multiply and become more hindering, not only for Latinos attempting to enter the workforce, but for Arizona's overall economic health.

In the years 2000/2001, nearly $45 \%$ of all dropouts, grades $7-12$, were Latino, although Latinos represented only $31.6 \%$ of the total grades 7-12 enrollment. Despite a slight improvement in the Latino dropout rate between 1999/2000 and 2000/2001 (down about $1 \%$ overall), the dropout rate remains stubbornly high. There would have to be an improvement of at least twice that rate if Latino students are to approach the same levels as non-HispanicWhite students (the only other population group of comparable size) in Arizona. The loss of any high-school student before graduation Latinos or otherwise - is the loss of human potential. It is almost a guarantee that the young person in question will find it difficult to form a family and raise children successfully. This loss carries huge economic, political, and social cost for the state of Arizona. These are costs that we

Table 23
Latino high school dropouts
Arizona students data for years 1994 through 2001.


Source:
Anzona Department of Education, 2002

## Table 24

Enrollments vs. dropouts, compared


Source:
Anzona Department of Education, 2002
are only now beginning to realize. Arizona's schools are hemorrhaging about 11,000 Latino students every year (González, 2002b) into the dropout pool.

According to Loui Olivas, "The higher your educational attainment, the more money you make, the more taxes you pay, the higher your standard of living, the higher is the likelihood that you will be involved politically and in your community" (González, 2002, May 17). A recent study on the impact of Arizona's dropout problem, commissioned by the Arizona Minority Education Policy Analysis Center (Arizona Minority Education Policy Analysis Center, 2002), indicates that the dropout problem in Arizona has severe economic effects (Morrison Institute, 2001). "The long-term cost amounts to \$159 million annually in lost personal income and $\$ 47.7$ million in lost state taxes because graduates have higher earning potential" (González, 2002, May 17). Forty-four percent of the high-school dropout problem is attributable to Latinos; $38 \%$ percent of it is a White experience, and the Native American, African American, and Asian sectors of our community

Table 25
Each group's contribution to Arizona's high-school dropout problem
Arizona students performance for years 2000, 2001. (Percentage is based on the ratio of number of dropouts within each group against total 7-12 enrollment.)

also account for the remaining $10 \%, 6 \%$, and $1 \%$, respectively (Table 25).

Because of their disproportionately high representation among dropouts and their disproportionately low representation among high school graduates in the state, it follows that we can then expect a disproportionately lower representation of Latinos in higher education. The statistics bear that out. In the next section, we describe, in greater detail, the condition of Hispanic education in higher education.

Anizona Depantment of Education, 2002

# Going to College: The Pathway to Careers, Civic Participation, and Service to Communities 

In previous waves of immigration, the sons and daughters of newcomers rarely went to college. When they did, they sought to become teachers, nurses, social workers, and to work in other helping professions. Their grandchildren went on to pursue other, more prestigious careers, such as medicine and law. More recently, additional options have become available for first-generation college attendees. But this opening of opportunities in other fields has not yet become well established. The children of Hispanic immigrants continue to enter the so-called "helping professions" much more than they enter others and there is greater economic pressure for more of them to do so. The result has been a minimal representation of young Latinos in professional fields such as medicine, law, architecture, the arts, and other high-prestige areas. Oddly, there are few Latinos and Latinas pursuing baccalaureate degrees in nursing, a field in which one would expect to see much more participation.

Even teaching, a favored profession among Latinos, does not show high numbers of Latinos enrolled. The lag in the development of a larger pool of Latinos in education, criminal justice, and nursing, has had a profound effect on the capacity of schools and healthcare institutions to educate Latino children and provide culturally proficient police service and medical care for Latinos. The lag in participation in these and other professions has been developing for a long time, and it is not likely to end soon. The results are clear: Latino children do not have sufficient role models to emulate in the schools. School, police, and medical administrators find it difficult to resolve obstacles between the professionals who work for them and the Hispanic public, patients, and students they serve. Police and Latinos often clash. For numerous reasons, many Latino students with the potential to succeed in college never have the opportunity to help fill these gaps because they never complete high school or do so with inadequate academic skills.

要基 development<br>of a larger pool of<br>Latinos in education,<br>criminal justice, and<br>nursing, has had a<br>profound effect on the<br>capacity of schools<br>and healthcare institur<br>tions to educate Latino<br>children and provide<br>culturally proficient<br>police service and<br>medical care for<br>Latinos.

## College Graduates in Latino Families

Effective parental support and encouragement for Latino students to stay in school and go to college is difficult to come by in Latino families, where many members have not attended college or even graduated from high school. At present, less than $6 \%$ of Arizona's Latino adults, 18 years old and older, have earned a Bachelor's degree or higher. That proportion represents a $1.6 \%$ decline from the previous year (Table 26). The problem is similar in other states with high concentrations of Latinos and other people of color. In Arizona, over 29\% of non-Hispanic White adults over 18 years of age had bachelor's degrees in the years 1999 and 2000. Only 5.6\% of Latinos had one in 2000, and 7.2\% in 1999.

## Latino Representation on College Campuses

Many more Latinos are attending community colleges and universities today than ever before. Despite this increase, the demographics of the college faculties in Arizona have remained relatively unchanged for decades. A rather large disparity exists between the numbers of Latino students in U.S. schools and the numbers of Latino teachers to educate them (Yasin \& Albert, 1999). A common complaint often heard among Latino students is that their teachers don't understand them. Coinciden-

Table 26
Percentage of Arizona's Hispanic college graduates
Arizona Hispanics, age 18 years or older who have a bachelor's degree or greater, years 1991 through 2000.

tally, we hear professors say that today's students are less able. We feel it is vitally important that larger numbers of Latino college students graduate, so that larger numbers of them will qualify to teach in K-12 classrooms as well as in colleges and universities. We are finding that "teachers of color bring with them an inherent understanding of the backgrounds, attitudes, and experiences of students from [their respective] groups and therefore can help inform

[^2]majority teachers on effective ways and means to communicate with students of color" (Lewis, 1996).

The presence of Latino teachers in positions of authority in schools and colleges also provides majoritystudents with important experiences in relating to Latino adults and ensures that all students encounter teachers who understand their language and cultural background. ArizonaState University is a case in point: During the Fall, 1999 term, $16.4 \%$ of support and maintenance workers; $11.0 \%$ of undergraduates; and $7.1 \%$ of graduate students were Latino, contrasted with only $6.6 \%$ of the faculty who were Latino (Table 27). In considering these data, Latino students are twice as likely to meet cafeteria workers or custodians who are Latino than they are to meet a Latino faculty member.

Though the proportion of Latino faculty on college campuses in Arizona is on the rise, their growth has been slow and will continue to be so. Even at ASU, where special steps are taken to recruit and retain Latino students and faculty, this slow growth rate in Latino faculty is seen. This is a subtle, but potentially pernicious situation for potential students and for undergraduates. It may send an unintended message that Latino scholars are not welcome, or that Latinos do not "have what it takes" to function in this capacity. Not only is this unfortunate for Latinos; it is equally unfortunate for members of other racial and ethnic groups who do not have the opportunity to observe Latinos in these roles and to learn more about their relative views on important subjects.

In 2000/2001 31\% of grade 7-12 students in Arizona were Latinos. Nineteen percent of community college students in the state were Latinos, but only eleven percent of the students in Arizona's public universities were Latinos (Table 28). The decrease in numbers of Latinos from one level of education to the next is staggering.

In short, Latino students' progress through the educational pipeline is analogous to a substance flowing through a funnel that narrows at every stage. Unlike most funnels, whose purpose is to ensure that all contents reach the same destination, this funnel constricts the flow,
causing an overflow. Many Latinos never reach the next level, whether that be a high-school diploma or a college degree. In any event, it is a guarantee that Latinos in this state will never have the same opportunities in the workplace or in civic life, as do other groups in the state. For Arizona, it is a deterrent to building healthy communities and a vibrant economy.

Table 27
Snapshot of the problem: 1998-2000.

|  | Number | Percent Latino |
| :---: | :---: | :---: |
| People |  |  |
| General Population <br> Source: U.S. Census Bureau, May 2001 | 5,130,632 | 25.3\% |
| Enrollment Count, gr. 7-12, 2002-2001 Source:Arizona Department of Education | 451,360 | 31.6\% |
| Students in Community Colleges, 2000-2001 Source: State Board of Directors for Community Colleges of Arizona | 174,632 | 19\% |
| Students in Public Universities, Fall 2000 Source: ASU, NAU Office of Planning and Institutional Research, UA Decision and Planning Support | 104,691 | 11\% |
| Faculty at ASU (all campuses; $50 \%$ or more FTE), Fall 2000 <br> Source: ASU Office of Institutional Analysis | 133 | 6.6\% |
| Faculty at NAU (all campuses; Full-time. Tenure-track. Excludes department heads), Fall 2000 <br> Source:Northern Arizona University Office of Planning and Institutional Research, 2002 | 30 | 4.3\% |
| Faculty at UA (all campuses; Full-time. Tenure-track. Excludes administrators at Dean level of higher.) Fall 2000 <br> Source: University of Arizona, Decision and Planning Support | 69 | 4.5\% |
| Credentials |  |  |
| High School Graduates (al end of 4 years), Cohort class of 2000. <br> Source: Arizona Department of Education | 40,911 | 24.1\% |
| Baccalaureates, 2000-2001 <br> Source: ASU Main Campus, Office of Institutional Analysis, NAU Office of Planning and Institutional Research, UA Decision and Planning Support | 14, 074 | 11.3\% |
| Graduate Degrees, 2000-2001 <br> Source: ASU Main Campus, Office of Institutional Analysis, NAU Office of Planning and Institutional Research, UA Decision and Planning Support | 6,500 | 7.6\% |

## What the Numbers Mean

The statistics derived from test scores, dropout rates, college attendance, and representation in classes and on faculties, are clear indicators that Latinos in Arizona are not full participants in the benefits of this society, and they are prevented from contributing to this society in more meaningful ways. What the data do not indicate is the complex array of reasons-many already well known to us--that provide the foundation for this dismal state of affairs. In the concluding pages of this report, we summarize a number of these reasons and what we should do about them.

The Latino educational situation in Arizona is not unlike that of other marginalized populations, such as AppalachianWhites, urban African Americans, and Native Americans. Hence, the typical explanations for Latinos' poor performance in school that center on the use of the home language and culture are not sufficient explanations of Latino students'
 educational attainment. A more comprehensive approach - one that includes and reaches beyond the language and culture issues -is required.

There is an important body of qualitative data - data that cannot be easily portrayed in a graph - that suggests that the price of excluding a child's home language and culture from the school's program is very high. Such evidence, when considered in conjunction with statistical data such as we present in this report, suggests there are more complex explanations for the gaps we have noted. It is axiomatic that all students, rich and poor, minority and majority, must feel connected to the culture of the schools. It can do no good for young Latinos and their families to see themselves consistently near or "at the bottom" in almost all measures and assessments and to see their home language systematically excluded. It becomes very easy for them to feel inferior when the overall performance of their group is consistently judged to be below par. When we take an approach that seeks to replace and substitute, the education system, unwittingly or otherwise, may be ensuring that the Latino population stays at these levels (Valenzuela, 1999).

Eugene García, Dean of Education at ASU, has noted that when asked if education is important, Latino parents will invariably say yes. However, when asked, "What's important about it?" and "How do you get it?" some parents cannot articulate a clear response. One likely reason may be because many Latino parents have also had the experience of not being successful in American schools. Many may not have attended school in the U.S. at all, and many others were dropouts in a prior generation. Consequently, they have not figured out how to help their children succeed and do not understand fully how the schools (and their culture) function (González, 2002, May 19).

From all indications, public education in the U.S. does not work well for poor people. Since a high proportion of Latino families are poor, we can assume that the values that prevail among the poor also play a role in Latino family life. To many immigrants from Mexico, (who comprise the majority of Arizona's Latino immigrant population), a sixth- or eighth-grade education is all that is expected, because a sixth grade education was all that was possible in rural areas of their homeland. In rural Mexico, an eighth-grade education is all that is required for many jobs and the preparational degree, roughly equivalent to a high-school diploma here, is worth much more in the job market there. Without a better understanding of the American economic scene, the result is acceptance of low expectations by such families. It is not that they do not value education; we feel their understanding of how much education is needed here, is inaccurate. It appears many Latino families do not know that there is a different set of educational requirements in the United States from what there may have been in the small towns whence they came. But, whose job is it to ensure that families-all families-understand fully that higher levels of education are needed? The answer to this question has not yet become clear.

Instead of helping Latino families adjust their expectations, U.S. educators may (too often) take the easier route of assuming that Latino students' expectations of themselves are related to low ability. Educators may attempt to help their students by lowering their own standards for the level of schoolwork they will consider acceptable (González, 2002, May 19). Low expectations may also be the result of
the system's inability toadmit that the factory-model-design of high schools has outlived its usefulness. It may well be that, to serve diverse communities, the schools themselves must become diverse. This problem is at its worst in our high schools.

In other investigations, we find that much education research, money, and time have been spent on early childhood and primary education, but relatively little attention has been paid to similar issues at the high-school level. "We've written kids off as hopeless, once they enter adolescence." (Orfield, as reported in Kossan, 2002). When we ask Latino students and their families to adapt to the American high school, we need to simultaneously insist that the high schools review their own curricula, instructional practices, and the values of their culture in order to meet the needs of today's diverse youth - one in which Hispanics forman importantand an increasingly large sector.

The education of Latino children and youth is not a temporary problem that will go away on its own. What is needed is a comprehensive approach that includes many actors and coordinates multiple strategies, rather than relying strictly on a single, special program or intervention that focuses on only a part of the problem. For example, implementing a tutoring program to improve Latino students' En-glish-language literacy might be part of a larger program that includes a family literacy component. This might lead to incorporating changes in policy - at P-12 and in higher education - that make a larger financial commitment to help school people work better with Latino students. This, in turn, might lead to more Latino students becoming education and allied health professionals.

In the past, policymakers and others interested in improving Latino education have taken an approach that places the burden of change on these trusting souls who, in actuality, are the "victims." The language and culture of the student, if not English-speaking and mainstream "American," have been treated as pathologies. Strategies to improve Latino students' performance in school have, in effect, sought to "cure" the student of his or her language and culture. To take this approach is neither necessary nor is it helpful. It sends a
negative message to students and families alike: namely, to "educate" you, we must strip you of your home language and culture. Only those of you who become monolingual (in English, of course) can expect to succeed. However, if we shift the paradigm from language and culture per se and focus on the importance of differences between school and Latino home and family, and we devise strategies to involve the student's language and cultural assets in negotiating the educational system, we come much closer to finding a solution to the problem that is nearer its source. Only when we make this shift, do we stand a greater chance of resolving the issue at its root. We must stress, however, that language and cultural differences are not the only problems, but they most certainly are important.

Most educators would agree that these data are not indicators of deficiencies of the Latino community or of the potential of Latino students. Nor are they deficiencies that the Latino community must fix, to gain acceptance into the mainstream. These data are, more accurately, barometers of our community's lack of access to the schools that it needs. Everyone in the community, not just Latinos, stand a lot to lose-economically, socially, morally, and ethicallyif we do not change how Latino students experience education in this state.

Part of a society's duties is to decide what is acceptable for everyone. Is it acceptable that 70-75\% of all students consistently "meet" or "exceed" certain standards of performance, when $25-30 \%$ do not? Is it acceptable that the proportion that does not will become larger if our society does not address Latino educational issues? Is it "all right" that 60-80\% of certain segments of our community "fall far below" or "approach" meeting most standards of performance, and these segments promise to grow over time? Is it acceptable that the high-school dropout rate for Latino students - at $14.3 \%$ in 2000-2001 — is over twice that of non-HispanicWhite students, because the rate is one or two percentage points lower than it was the year before? These questions beg for answers and they cannot be avoided in our public policy conversations.

It is obvious that the Latino population constitutes the largest block of educational "have-nots" in the state. Latinos are over-represented in every negative measure, and under-represented in every positive one. Latinos already embody the largest minority among high-school graduates in Arizona. During the next decade, they will become the majority in Arizona schools. According to the U.S. Census Bureau (2001), at least 1.29 million Latinos now live in Arizona. By the year 2025, a projected 2.07 million Latinos will reside here. It is imperative that the condition of Latino education in Arizona improves. Otherwise, everyone will be less able to enjoy a high standard of living in the coming decades. Our state's ability to attract businesses and foster economic growth will be impeded by a severe lack of skilled workers and an overburdened social-welfare system, if we continue to undervalue and under-educate this important component of our population.

Judging by their past, it seems that the schools, working alone, will not be able to solve this dilemma. The problem has become too large for only one set of its people to resolve. Schools and school people tend to be inwardly oriented rather than being oriented to the communities they serve. We feel this task is too complex and multi-faceted to merely "plop" on the doorstep of the schoolhouse. To improve education for Latino students, parents and school people must collaborate with other community elements in shaping new education policy. They must form alliances with those organizations that involve the parents and other adults in the lives of these children, not merely the children themselves. What must happen, in effect, is that the schools join with others to reach the hearth, the place where children and their families learn about the relationships they should have with their social and cultural institutions that affect their lives. This re-shaped system must have the organizational and institutional capacity to ensure that all students, Latino and otherwise, have equitable educational experiences. Sometimes, each segment will reach within itself; sometimes each segment will join with other segments of the broader community to carry out a specific mission such as mentoring, or teaching students how to use time more wisely, or how to resolve interpersonal conflicts. Not all segments will be at work at the same time or on the same task. But all tasks will be necessary and important ones. There are many ways to meet the need for collaboration and community engagement.

All involve reaching out beyond the school and employing a commu-nity-based approach.

When we focus on experiential differences as a source of Latino students' continued dismal academic performance in school and in college, it follows, logically, that providing experiences to mitigate those differences will also serve to improve Latino students' academic achievement in school and in college. An example of this is Metro-Phoenix ENLACE, a community-engagement partnership that involves seven community-based organizations, corporations, school districts, Arizona State University, and the Maricopa County Community College District. ENLACE is one example of this approach; there may be others that work equally well. Through efforts of this type, Latino young people, from elementary school through college will benefit from experiences that fill the experiential gap that may now exist in their respective families and communities.

Improving the condition of Hispanic education in Arizona will require the will and wherewithal of Latinos and other community members in collaboration with each other: businesses, churches, government agencies, etc. It will require self-examination of all participants in the educational enterprise - both within and outside of the Latino community. This self-exam should help determine the resources and needs we are hoping to match. Nothing short of changing "the way we do business" in education institutions may be needed. There are many ways to work together. What is imperative is that we do work together and, at the same time, we hold schools and school people accountable for doing the best work possible.

To aspire to high standards is appropriate when everyone has appropriate support and resources to learn. To aspire to high standards without changing the mechanisms and patterns of how we work is folly. As we learn to work together in new ways, things might not always go smoothly. But, this necessary process will ensure that future generations of Arizonans, Latino and otherwise, will lead better and more productive lives. There is no more "we" or "they." There is only "us."

## References

Aportela, A. and Owin, B. (2002). Dropout rate study: Annual dropout rates, Arizona public schools, grades seven through twelve. Phoenix, AZ:Arizona Department of Education.

Arizona Minority Education Policy Analysis Center (AMEPAC). (2002). Stemming the tide of dropouts: An action agenda for Arizona. Phoenix, AZ: Arizona Commission for Postsecondary Education.

Ballator, N. and Jerry,L. (1999). The NAEP 1998 reading state report for Arizona. Washington, DC: National Center for Education Statistics. (NCES-1999-460 AZ)

Closing the education gap. (2002, May 29). The Wall Street Journal, p. A20.

Decision and Planning Support (2001). UA Factbook 2001-2. Tucson, AZ: University of Arizona. Retrieved August 1, 2002, from http://daps.arizona.edu/daps/factbook/fb-cover.html.

Demographics reports for Grade 3, 5 and 8 AIMS. (2002). Phoenix, AZ: Arizona Department of Education. Retrieved May 19. 2002,from http://ade.az.gov/standards/aims/demograhics/.

Eighth grade student guide for Arizona's Instrument to Measure Standards. (2001/1999). Phoenix, AZ: Arizona Department of Education.

Fifth grade student guide for Arizona's Instrument to Measure Standards. (2001/1999). Phoenix, AZ: Arizona Department of Education.

García, E. (2001). Hispanic education in the United States: Raices y alas. Albany,NY: State University of New York Press.

González, D. (2002, May 19). Cultural values linked to Latino dropout rate. The Arizona Republic, p. A1.

González, D. (2002, May 17). Latino dropout problem hits crisis proportion. The Arizona Republic. [Electronic version]

González, D. (2002, May 16). Dropout toll 32\% costly to Arizona. The Arizona Republic, p. A1.

Guía del estudiante para el AIMS (3er año). (2001/1999). Phoenix, AZ: Arizona Department of Education.

Guía del estudiante para el AIMS ( $5^{\circ}$ año). (2001/1999). Phoenix, AZ: Arizona Department of Education.

Guía del estudiante para el AIMS ( $8^{\circ}$ año). (2001/1999). Phoenix, AZ: Arizona Department of Education.

Guía para el informe estatal del AIMS. (2000). Phoenix, AZ: Arizona Department of Education. Retrieved May 19, 2002, from http://ade.az.gov/standards/aims/SpanishDocs/Default.asp. High school student guide to Arizona's Instrument to Measure Standards (AIMS). (2001/2000/1999). Phoenix, AZ: Arizona Department of Education.

Jerry, L. and Ballator, N. (1999). The NAEP 1998 writing state report for Arizona. Washington, DC: National Center for Education Statistics. (NCES-1999-463 AZ)

Kossan, P. (2002, May 12). Students struggle with learning, drop out: High schools due for makeover. The Arizona Republic, p. A1.

Lewis, M. S. (1996). Supply and demand of teachers of color. ERIC Digest. [Online]. Available: http://www.ed.gov/databases/ ERIC_Digests/ed390875.html. Accessed June 2, 2002.

Measuring Up 2000. (2000). Washington, DC: National Center for Public Policy and Higher Education. Retrieved August 1, 2002, from http://measuringup2000.highereducation.org/.

Morrison Institute for Public Policy. (2001). Five shoes waiting to drop on Arizona's future. Tempe, AZ: Arizona State University.

Office of Planning and Institutional Research. Factbook 20012002. (n.d.) Flagstaff, AZ: Northern Arizona University. Retrieved August 1, 2002, from http://www4.nau.edu/pair/NewFactBook/ newfactbook.htm.

Owin, B. (2002). Four year graduation rates for the cohort class of 2000: Arizona public high schools. Phoenix, AZ: Arizona Department of Education.

Para entender el reporte estudiantil 2000 del AIMS. (n.d.) Phoenix, AZ: Arizona Department of Education. Retrieved May 19, 2002 from http://ade.az.gov/standards/aims/SpanishDocs/ Default.asp. Accessed May 19, 2002.

Regla de composición de seis caracteristicas de AIMS. (n.d.). Phoenix, AZ: Arizona Department of Education. Retrieved May 19, 2002, from http://ade.az.gov/standards/aims/SpanishDocs/ Default.asp.

Solomon, C., Jerry, L., and Lutkus, A. (2001). The nation's report card: State mathematics 2000. Report for Arizona. Washington, DC: National Center for Education Statistics. (NCES 2001-519 AZ)

Solomon, C, Jerry, L., and Lutkus, A. (2001).The nation's report card: State science 2000. Report for Arizona. Washington, DC: National Center for Education Statistics. (NCES 2002-453 AZ)

Stanford Achievement Test, Ninth Edition, test coordinator manual. (2002). Phoenix, AZ: Arizona Department of Education. Retrieved May 19, 2002, from http://ade.az.gov/standards/stanford9/.

Tabla de conversión de puntuación bruta/ puntuación escala. (n.d.). Phoenix, AZ: Arizona Department of Education. Retrieved May 19, 2002, from http://ade.az.gov/standards/aims/SpanishDocs/ Default.asp.

Third grade student guide for Arizona's Instrument to Measure Standards. (2001/1999). Phoenix, AZ: Arizona Department of Education.

University Office of Institutional Analysis (2000, March). An historical review of minority students, faculty, and staff, 1989-1999. Tempe, AZ: Arizona State University.
U.S. Census Bureau (n.d.). Educational attainment. Washington, DC: U.S. Department of Commerce. Retrieved August 20, 2002, from http://www.census.gov/population/www/socdemoeducattn.html.
U.S. Census Bureau (2002). The big payoff: Educational attainment and synthetic estimate of work-life earnings. Washing, DC: U.S. Department of Commerce. Retrieved August 20, 2002, from http:/ /www.census.gov/prod/2002pubs/p23-210.pdf.
U.S. Census Bureau. (2001). Profiles of general demographic characteristics, 2000 census of population and housing: Arizona. Washington, DC: U.S. Department of Commerce.

Valenzuela, A. (1999). Subtractive schooling: U.S.-Mexican youth and the politics of caring. Albany,NY: State University of New York Press.

What they are saying. (2002, May 10). The Arizona Republic. Retrieved May 12, 2002, from http://www.arizonarepublic.com/ special29/articles/0510studentquotes-a-ON.html.

Yasin, S. \& Albert, B. (1999). Minority teacher recruitment and retention: A national imperative. Washington, DC: American Association of Colleges for Teacher Education.


## Acknowledgements

Any report on a topic as complex as the education of Latino students in Arizona requires collaborative effort. This report is no exception.

We are first indebted to the planning group who convened in Sep-tember 2001 and whose insights gave focus and direction to our efforts. Among the group were representatives of various institutions, including Joe Eddie Lopez of the Arizona State Senate; Margaret Bortner, Alfredo de los Santos, Gary Hanson, Sarah Hudelson, South Mountain Community College; and Mary Carol Combs and John Taylor from the University of Arizona.

We are grateful to Jaime Molera, Arizona Superintendent of Public Instruction, who made available excellent data from the Arizona Department of Education. Anabel Aportela, Director of the Research and Policy Division, and Education Research Associate Ildiko Laczko-Kerr were especially helpful in sorting through K-12 student performance data for this report. Similarly,Loui Olivas, AssistantVice President of ASU made available his own extensive collection of demographic data. Provost Milton Click has been generous and unwavering in his support for Metro Phoenix ENLACE, the sponsor of this report.We are pleased to acknowledge his support.

We had the opportunity to present these and related data to educators at the Arizona Association of Bilingual Education conference in January 2002. Their reactions and questions helped to shape further the organization of this report.

We are indebted to the staff at the Southwest Center.Pauline Stark's organizational support and attention to detail kept us on track.
Graduate assistant Mario Castro compiled the U.S. Census and higher education data. His expertise with ArcView software and the ASU Map Collection enabled us to picture demographic data graphically.James Lewis' invaluable editorial expertise ensured an improved report. Lani Asturias completed layout of the manuscript in Pagemaker. AndreaStark completed the cover layout and provided technical assistance with Pagemaker. Graduate assistant Ha Lam's proof of the manuscript yielded subtle and meaningful changes to the draft. Finally, during summer break, Rafael Serrano, a graduate
assistant at the Education Policy Studies Laboratory of the College of Education, Arizona State University, carried out the challenging task of translating the report into a Spanish that is both faithful to the English translation and hopefully true to the Spanish language. To all of our colleagues, many, many thanks!

A very special thanks to the members of the Metro Phoenix ENLACE partnership, whose unflagging efforts with Latino students and their families are reminders of the urgency of improving education for Latino students in Arizona. We especially thank Rosemary Canon and Max Gonzales at SRP, one of the Metro Phoenix ENLACE corporate partners, for $S R P$ 's support in making the publication of this report possible. Finally, when the project threatened to stall for lack of funding, we turned to the newly arrived Dean of the College of Education at ASU, Eugene García. Dean Garcia embraced the report enthusiastically and provided the needed dollars to complete it. Our sincere thanks to Gene.


Josué M. González
Director and Professor
Southwest Center for Education Equity and
Language Diversity. ASU


Elsie M. Szecsy
Associate Research Professional Southwest Center for Education Equity and Language Diversity, ASU

This publication was funded in part by the W. K. Kellogg Foundation. The opinions expressed herein do not necessarily reflect the position or policy of the W.K. Kellogg Foundation and no official endorsement by the department should be inferred.

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[^0]:    Source:
    Arizona Department of Education, 2002.

[^1]:    Source:
    U.S. Census Bureau, 2000.

[^2]:    Source:
    U.S. Cansus, 2002

