New Mexico Student Success: The Many Costs Of Failure And What UNM Can Do About It



Prepared For The University of New Mexico's Board of Regents' Academic/Student Affairs & Research Committee Albuquerque, New Mexico August 1, 2012

This Brief Was Prepared By: Peter Winograd, UNM Center For Education Policy Research Kevin Stevenson, UNM Center For Education Policy Research Angelo Gonzales, UNM Center For Education Policy Research



Overview

- As a public flagship research university, UNM embraces its public service mission of improving the state and community in which we live.
- To this end, the UNM Board of Regents Academic/Students Affairs and Research Committee has adopted a goal of defining UNM's role in improving K-12 student success in New Mexico.
- In Fall 2011, 86% of UNM's beginning freshman class came from a New Mexico high school – if we are going to make the necessary improvements in student success at UNM, we must be a constructive partner with our K-12 counterparts.



Current Results



Every year, more than 1 million US students – that's 7,000 every school day – do not graduate from high school on time.

4 CENTER & EDUCATION POLICY RESEARCH Source: Alliance for Excellent Education, www.all4ed.org

Too many students face daunting challenges both in and out of school and all along the pathway from early childhood to high school, college and beyond. If we are going to make a difference in student success, then UNM must think wisely about how to address all of these challenges.



Truancy and Mobility



Selected Research on Truancy

- Prior research indicates that high truancy rates are associated with high poverty.
- Student Factors
 - Truancy is associated with a decrease in pupil motivation, falling behind academically, losing interest, and avoiding class.
- School Factors
 - Truancy is higher in schools where there is inconsistent enforcement of truancy policies, poor interaction between parents and school personnel, unsupportive teachers, uncertified teachers, and low sensitivity to diversity issues.
- Family and Parental Factors
 - Parental involvement is strongly correlated with socioeconomic status (SES). Higher income parents tend to be more involved in their children's education in numerous ways.
- Neighborhood and Community Factors
 - Lower SES neighborhoods tend to experience higher truancy rates due to inadequate youth support systems.
 - Higher SES neighborhoods tend to invest more in community and youth development because there is less residential mobility and a higher degree of home ownership.



Percentage of Elementary School Students Who Are Habitually Truant



8

Percentage of Middle School Students Who Are Habitually Truant



Percentage of High School Students Who Are Habitually Truant



Risk Factors



Percentage of High School Students Who Reported Using Heroin, Cocaine, or Meth at Least Once in their Lives



Source: APS and state high school data taken from New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked the following three questions: "During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?" "During your life, how many times have you used heroin (also called smack, junk, or China White)?" "During your life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?" The percentages reported here reflect respondents who reported using the given drug one or more times. National data taken from High School Youth Risk Behavior Survey, 2009, Centers for Disease Control & Prevention.



Percentage of Students Who <u>Actually</u> Attempted Suicide





Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked, "During the past 12 months, how many times did you actually attempt suicide?" The percentage reported here reflects respondents who answered one or more times.

Percentage of Middle School Students Who Have Had Sexual Intercourse





Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked, "During your life, with how many people have you had sexual intercourse?" The percentage reported here reflects respondents who answered one or more people.

Percentage of High School Students Who Have Had Sexual Intercourse





Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked, "During your life, with how many people have you had sexual intercourse?" The percentage reported here reflects respondents who answered one or more people.

Teen Birth Rate, Ages 15-19



The data point in each census tract represents the number of live births to teen women per 1000 teen women, over the period 2001-2005.

For example, the census tract in the center with a teen birth rate of 106.4 means that there were 106 live births to teen women for every 1000 teen women who live in the census tract.

Poor Data Quality



Source: New Mexico Community Data Collaborative. The rates shown here reflects the average number of children per 1000 women born to teen mothers (ages 15-19) between 2001 and 2005. Rates are reported by census tract; high school boundaries are overlaid to provide perspective. In 2005, the statewide teen birth rate was 62 per 1000, and the nationwide rate was 40 per 1000 (Kids Count Data Center, http://datacenter.kidscount.org).

Capacity of 4- and 5-Star Licensed Child Care Centers





Source: New Mexico Community Data Collaborative, December 2010. Enrollment data are reported by program site. Elementary school boundaries are overlaid to provide perspective.

The Percentage of Birth **Mothers Without A High School Diploma By New Mexico School District**

Research has shown a link between parental education levels and child outcomes such as educational experience, attainment, and academic achievement.



Aztec (22.9%) Raton Questa Dulce (31.2%) (31%) **Des Moines** (15.7%) (4.6%) Chama Mesa Vista Farmington (25.9%) Cimarron Maxwell (11.1%) (18.8%) (17.2%) (15.4%) Central Bloomfield (29.5%) (24.9%) Taos (23%) Springer (21%) Clayton (23.2%) **Jemez Mountain** (25.8%) Espanola (31.7%) Penasco (20.3%) Mora Wagon Mound (16.7%) Roy (7.1%) (17.2%) Los Alamospojoaque (4.1%) (28.6%) Cuba (34.8%) Mosquero Gallup Valley (20%) Las Vegas City (19%) (27.9%) (15.8%) (22%) Santa Fe Logan (18.2%) (34.2%) Bernalillo (24.4%) West Las Vegas **Rio Rancho** (27.8%) (10.7%) San Jon Zuni (28.2%) Albuquerque (24.2%) Moriarty (17.4%) Tucumcari (9.1%) Grants-Cibola (29.8%) Santa Rosa (22%) (30.9%) Grady (17.7%) Los Lunas (31.4%) House Estancia Vaughn (15.4%) (29.2%) Melrose (25%) (6.8%) Clovis Belen (24.6%) Mountain Air (30.8%) Fort Sumner (21.2%) Quemado (38.3%) Texico Floyd (15.5%) Portales(35.7%) Magdalena (31.5%) Corona (28.6%) (11.1%) (27.3%) Socorro Dora (26.7%) Carrizozo (40.6%) (22.9%) Roswell Reserve (13.7%) Capitan (31.5%) Hondo (17.4%) (18.3%) Rudioso Tatum (27%) (33.7%) Dexter Tularosa (37.6%) Truth or Consequences (39.7%) (36.1%) Lake Arthur Hagerman (34.1%) (32.7%) Lovington (34.1%) Cobre (26.1%) (35.5%) Artesia Hatch Silver City Cloudcroft (50.4%) (33.8%) Hobbs (25.2%) (6.9%) (34.9%) Eunice (30.7%) Lordsburg Las Cruces Loving (32.1%) (30%) (21.6%) Alamogordo (15.6%) Deming (46.7%) Carlsbad Jal (27.3%) (20.3%) Gadsden (49.2%) Animas (30.5%) http://nces.ed.gov/pubs2010/2010015/index.asp

Source: Data is drawn from the New Mexico Community Data Collaborative. http://nmcdc.maps.arcgis.com/home/webmap/viewer.html?webmap=3c17241be29e48a4a3159dcf4c10a151. Research citations include Status and Trends in the Education of Racial and Ethnic Minorities, July 2010.

Resiliency Factors



Percentage of Albuquerque Public Schools High School Students <u>Not</u> Involved in Group Activities Outside of School or Home



15 - 25% 25 - 35% 35 - 50%



Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked, "Outside of my home and school, I am a part of clubs, sports teams, church/temple, or other group activities." The percentage reported here reflects respondents who answered "Not true at all."

Percentage of Albuquerque Public Schools High School Students <u>Not</u> Involved in School Sports, Clubs, or Activities



21 CENTER for EDUCATION POLICY RESEARCH

Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked, "At school I am involved in sports, clubs, or other extra-curricular activities (such as band, cheerleading, or student council)." The percentage reported here reflects respondents who answered "Not true at all."

Percentage of Students Who Report <u>Not</u> Having a Parent or Adult at Home Who is Interested in Their School Work





Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked to comment on the statement, "In my home, there is a parent or some other adult who is interested in my school work." The percentage reported here reflects respondents who answered, "Not true at all."

Key Outcomes of High School Students Experiencing High & Low Levels of Caring and Supportive Relationships With <u>Parents</u>, New Mexico, 2009



Students Experiencing High Levels of Care Students Experiencing Low Levels of Care



Source: New Mexico Epidemiology, 2010. (<u>http://nmhealth.org/erd/HealthData/pdf/ER%20YRRS%20092410.pdf</u>). National data taken from High School Youth Risk Behavior Survey, 2009, Centers for Disease Control & Prevention.

Percentage of Students Who Report <u>Not</u> Having a Teacher or Some Other Adult Who Cares About Them at School



24 CENTER for EDUCATION POLICY RESEARCH

Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked to comment on the statement, "At my school, there is a teacher or some other adult who really cares about me." The percentage reported here reflects respondents who answered, "Not true at all."

Key Outcomes of High School Students Experiencing High & Low Levels of Caring and Supportive Relationships With <u>Teachers</u>, New Mexico, 2009





Source: New Mexico Epidemiology, 2010. (<u>http://nmhealth.org/erd/HealthData/pdf/ER%20YRRS%20092410.pdf</u>). National data taken from High School Youth Risk Behavior Survey, 2009, Centers for Disease Control & Prevention.

Percentage of Students Who Report <u>Not</u> Having an Adult Outside of Home or School Who Cares About Them



26 UNN CENTER & EDUCATION POLICY RESEARCH

Source: New Mexico Youth Risk and Resiliency Survey, 2009. Students were asked to comment on the statement, "Outside of my home and school, there is an adult who really cares about me." The percentage reported here reflects respondents who answered, "Not true at all."

Key Outcomes of High School Students Experiencing High & Low Levels of Caring and Supportive Relationships With <u>Adults in the Community</u>, New Mexico, 2009





Source: New Mexico Epidemiology, 2010. (<u>http://nmhealth.org/erd/HealthData/pdf/ER%20YRRS%20092410.pdf</u>). National data taken from High School Youth Risk Behavior Survey, 2009, Centers for Disease Control & Prevention.

Academic Achievement, Graduation & Educational Attainment

28 CENTER AT EDUCATION FOLICY RESEARCH

Percentage of NM 4th Grade Students Scoring At or Above Proficient in <u>Math</u>, By Race/Ethnicity







Percentage of NM 8th Grade Students Scoring At or Above Proficient in <u>Math</u>, By Race/Ethnicity

30 CENTER 5# EDUCATION POLICY RESEARCH





Percentage of NM 4th Grade Students Scoring At or Above Proficient in <u>Reading</u>, By Race/Ethnicity



32 CENTER & EDUCATION POLICY RESEARCH



Percentage of NM 8th Grade Students Scoring At or Above Proficient in <u>Reading</u>, By Race/Ethnicity

33 CENTER 6# EDUCATION POLICY RESEARCH

Student Achievement Comparisons NAEP Grade 4 Reading Students At or Above Proficiency: Selected States That Were Within Two Points of NM in 1992 and Where They Are Now + Florida





How Do New Mexico Students Compare To The Rest Of The World?





Source: http://educationnext.org/files/ednext_20111_TeachingTalented_fig1.jpg

How Do New Mexico Students Compare To The Rest Of The World?

Percentage of Students at the Advanced Level in Math



See "Teaching Math to the Talented" by Eric A. Hanushek, Paul E. Peterson, and Ludger Woessmann for methodological details.

Source: http://educationnext.org/teaching-math-to-the-talented-map/


Four-Year High School Graduation Rate, **Graduation Gap Between Caucasians and Students of Color**



Rate, Classes of 2008-2010.

Four-Year High School Graduation Rate, All Students, By District





Source: N.M. Public Education Department, 4-Year Cohort High School Graduation Rate, Class of 2011.

APS Four-Year High School Graduation Rate, All Students, Class of 2011



According to the Alliance for Excellent Education, there are nearly 2000 high schools nationally that graduate less than 60% of their students within four years.

These schools disproportionately produce 51% of the nation's dropouts.

APS has four high schools with less than a 60% graduation rate.



Source: NM Public Education Department, 4-Year Cohort High School Graduation Rate, Class of 2011. Data were unavailable for Atrisco Heritage Academy High School, which did not have a graduating class in 2011. Alliance for Excellent Education statistics taken from http://www.all4ed.org/about_the_crisis/schools/dropout.

Percentage of Students Attending New Mexico Colleges Who Took Remedial Courses, 2000-2009, By Sending High School





Source: "Ready For College? A Report on New Mexico's High School Graduates Who Take Remedial Courses In College," June 2010, New Mexico Office of Education Accountability. Data were unavailable for Volcano Vista & Atrisco Heritage Academy.

Percentage of Individuals Over 25 Years of Age With At Least a High School Diploma (or Equivalent), By Census Tract





Source: U.S. Census, American Community Survey, 2006-2010 Five-Year Estimates. Rates are reported by census tract. State and national averages taken from the 2010 American Community Survey (state avg. = 82.7%; national avg. = 85.0%).

Percentage of Individuals Over 25 Years of Age With an Associates Degree or Higher, By Census Tract





Source: U.S. Census, American Community Survey, 2006-2010 Five-Year Estimates. Rates are reported by census tract. State and national averages taken from the 2010 American Community Survey (state avg. = 32.6%; national avg. = 35.4%).

Current Costs



New Mexico Invests Substantial Financial Resources to Provide Educational Opportunities to its Citizens

- On average, New Mexico spends an estimated \$90,000 per student on a K-12 education.
 - An average of \$6,940 per student per year
- On average, New Mexico spends an estimated \$51,300 per student on a four-year college education.
- New Mexico consistently ranks amongst the highest in the nation in per capita spending on higher education (\$581 in FY08)



Source: CEPR analysis of PED and HED data

The Economic Impacts of Low Student Success

- Nationwide, approximately 1.3 million students from the high school class of 2010 did not graduate. The lost revenues of those dropouts are staggering:
 - \$15.2 billion in lost earnings
 - \$11.2 billion in lost spending
 - \$4 billion in lost investing
 - 108,000 lost jobs and \$19.2 billion in lost economic growth
 - \$1.4 billion in lost state tax revenues

Source: Alliance for Excellent Education *Education and the Economy: Boosting the Nation's Economy by Improving High School Graduation Rates*



The Social Impacts of Low Student Success

- In recent years, due to rising healthcare costs, states have begun to spend more money on healthcare than any other single budget item – including education!
- Research has shown that for each high school student who graduates, rather than dropping out, will save \$13,706 in Medicaid and expenses for uninsured care over the course of their lifetime.
- If all of the dropouts in the class of 2005 had graduated, states would be projected to save over \$17 billion.



Source: Alliance for Excellent Education Healthier and Wealthier: Decreasing Health Care Costs by Increasing Educational Attainment

The Civic Impacts of Low Student Success

- The overwhelming majority of incarcerated Americans did not complete high school:
 - 75% of state prison inmates
 - 59% of federal prison inmates
 - 69% of jail inmates
- High school dropouts are more likely to be arrested and incarcerated than their high school graduate peers.
- A 5% increase in the male high school graduation rate would save the nation close to \$5 billion.



Source: Alliance for Excellent Education Saving Futures, Saving Dollars; The Impact of Education on Crime Reduction and Earnings

The Local Benefits of Improving Student Success



Boosting New Mexico's Economy by Increasing Student Success

- A 1% increase in the high school graduation rate would likely produce the following contributions to the state economy:
 - \$2.8 Million in Increased Earnings
 - \$2.1 Million in Increased Spending
 - \$668,000 in Increased Investing
 - \$3.7 Million in Economic Growth and 27 New Jobs as a result of increased spending & investing
 - \$200,000 in Increased Tax Revenues

Source: Alliance for Excellent Education *Education and the Economy: Boosting the New Mexico's Economy by Improving High School Graduation Rates*



Boosting New Mexico's Economy by Increasing Student Success

- A 1% increase in the high school graduation rate would likely produce the following contributions to the state economy:
 - \$7.6 Million reduction in crime-related spending
 - \$4.1 Million reduction in Medicaid/uninsured care spending

Sources: Alliance for Excellent Education Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings and Healthier and Wealthier: Decreasing Health Care Costs by Increasing Educational Attainment



What Can We Do To Improve Student Success In New Mexico?

51 **UNM** CENTER for EDUCATION FOLICY RESEARCH

Investments in Human Capital Along the Entire Pipeline Are Essential to Improving Success



Source: Heckman and LaFontaine (2007).

52

UNM Should Be Actively Engaged In UWCNM's Education Support/Strive Initiative

- Focus on improving graduation:
 - Education is complex and there are so many possible issues to address.
 - All of the complex issues in education result in too few students graduating.
 - Improving graduation is a shared goal of the school districts and higher education institutions in central New Mexico.



STRIVE aligns SUPPORT from Cradle to Career



of Central New Mexico

UNM Should Demonstrate Credibility by Improving the Success of its Students UNM Sx-Year Graduation Rate by Sending High School



55 CENTER & EDUCATION POLICY RESEARCH

Source: UNM Office of Institutional Research. The six-year graduation rate is the percentage of first-time, full-time, degree seeking students each Fall semester who graduate with a Bachelors degree or PharmD degree, or who are enrolled in the fourth fall of the PharmD Program within six years (this is the definition of Graduation Rate as reported to the Federal Department of Education IPEDS system). The data reported here are for the 2004 student cohort.

UNM Should Demonstrate Credibility by Improving the Success of its Students



Source: UNM Office of Institutional Research Freshman Cohort Tracking Report



UNM Should Demonstrate Credibility by Improving the Success of its Students



Source: UNM Office of Institutional Research Freshman Cohort Tracking Report



UNM Should Value And Support Early Childhood – High School Outreach Activities

- Departments need to recognize the importance and value of K-12 outreach and support activities, and ensure that faculty who are engaged in this work are given appropriate credit during the tenure and promotion process.
- UNM should continue to gather information on the Early Childhood High School initiatives taking place on its main and branch campuses.
- UNM should develop a process for facilitating communication among those involved in the EC-HS initiatives
 - Systematic way of learning what those on the front lines believe are that ways that UNM can help improve student success.
 - Facilitate processes by which EC-HS Practitioners can leverage UNM faculty expertise to help address challenges.



CEPR.UNM.EDU

