College & Career Readiness: Insights from the Central Texas Student Futures Project

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State of Urban Education Forum
AT&T Executive Training Center

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Factors Affecting College Enrollment & Work

- Family Background
- Community & Neighborhood Effects
- Student Characteristics
- Pre-High School Experiences
- High School Setting & Programs
- Individual High School Experiences: Staff interaction, Extracurriculars, College prep, Coursework
- High School Completion
- Initial Postsecondary Educational Outcomes
- Initial Employment
- Long-term Postsecondary Educational Outcomes
- Individual College Experiences
- College Characteristics

Source: B. Levy & C. King, Central Texas Student Futures Project Conceptual Model (2009).
The *Central Texas Student Futures Project* research is part of a broader Greater Austin Chamber of Commerce (GAC) initiative:

- Ongoing (2005-2013) partnership of the Ray Marshall Center, GAC and 11 ISDs, touching 84% of area high school seniors
- Longitudinal analysis of student-level education, workforce and other records, including student exit surveys linked to secondary, postsecondary education, labor market, corrections and other outcomes data
District Composition of 2009 Graduates (SFP)

- Austin: 33%
- Round Rock: 4%
- Manor: 11%
- Pflugerville: 20%
- Leander: 12%
- Hays: 6%
- Eanes: 4%
- Del Valle: 4%
- Bastrop: 4%
- San Marcos: 4%
## Composition of Graduates
(2007 SFP Districts)

Black share relatively constant; Hispanic and low-income shares gradually increasing.

<table>
<thead>
<tr>
<th></th>
<th>Class of 2007</th>
<th>Class of 2008</th>
<th>Class of 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Totals</strong></td>
<td>9,410</td>
<td>10,452</td>
<td>10,793</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Black</td>
<td>11%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>29%</td>
<td>31%</td>
<td>32%</td>
</tr>
<tr>
<td>White</td>
<td>52%</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>48%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Male</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Family Income Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-income</td>
<td>21%</td>
<td>23%</td>
<td>26%</td>
</tr>
<tr>
<td>Not Low-income</td>
<td>73%</td>
<td>73%</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Special Education Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Education</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Not Special Education</td>
<td>85%</td>
<td>87%</td>
<td>87%</td>
</tr>
</tbody>
</table>
Getting TO College

First, review factors statistically associated with enrolling in 4-year and 2-year institutions.

Then, identify particular strategies for increasing college enrollment rates in both 4- and 2-year institutions.

Highlight results for key groups, especially low-income, Hispanic and first-generation college students.

Factors and strategies vary by type of college and population group: one-size-fits-all approaches not likely to succeed.
Postsecondary Enrollment of Central Texas HS Graduates, Fall Following Graduation, by College Type, Ethnicity and Income Status (2007 SFP Districts)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-Year</td>
<td>4-Year</td>
<td>2-Year</td>
</tr>
<tr>
<td>Enrolled Graduates (%)</td>
<td>22%</td>
<td>40%</td>
<td>22%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>21%</td>
<td>57%</td>
<td>20%</td>
</tr>
<tr>
<td>Black</td>
<td>23%</td>
<td>35%</td>
<td>22%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>22%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>White</td>
<td>23%</td>
<td>49%</td>
<td>22%</td>
</tr>
<tr>
<td>Income Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-income</td>
<td>21%</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>Not low-income</td>
<td>23%</td>
<td>47%</td>
<td>23%</td>
</tr>
<tr>
<td>Unknown</td>
<td>21%</td>
<td>12%</td>
<td>22%</td>
</tr>
</tbody>
</table>

* Overall denominator includes 100 students who lacked enough information to link to NSC records; 62% reflects the best possible rate using NSC and THECB data.
Percent of 2009 Graduates Enrolled in Fall 2009, by College Type and District (N=11,993)
Percent of 2009 Graduates Enrolled in Fall 2009, by Location and District (N=11,993)
Major Factors Linked to Increased 4-Yr Enrollment Odds

(Class of 2007)

**Major factors increased enrollment odds by 50% or more. No factors reduced enrollment odds by more than 50%.**
Major 4-Yr Enrollment Factors, Selected Populations (Class of 2007)

- **Hispanic graduates**: many key factors the same but strength varied. Strong curriculum and FAFSA very important; males more likely to enroll; parental education and visiting campuses not significant.

- **Low-income graduates**: far fewer significant variables. Curriculum and Top 10% most important.

- **First-generation graduates**: Top 10% increased enrollment odds by 400%; college entrance exams, 8th grade high school math credit also important; curriculum not significant for this group.

**For all graduates, uncertainty about borrowing money for college reduced 4-yr enrollment odds.**
Fewer factors statistically associated with odds of 2-year college enrollment.

- None increased the odds of 2-year college enrollments by more than 50%.

- Graduating in the Top 10% of the senior class reduced 2-year enrollment odds by more than 50% for all groups.

- Never thinking about college as an option reduced 2-year enrollment odds by more than 50% for surveyed graduates overall, but not for the various groups.
Effective College Enrollment Strategies

- Various **college preparation activities**—college enrollment counseling, taking college entrance tests, completing college applications, applying for FAFSA—improve college enrollments for all students (SFP & Tierney et al. 2009).
- Ensuring students **take a rigorous curriculum** and **excel in school** is also effective for most (SFP & Tierney et al. 2009).
- **Reducing student mobility** is critical: students changing high schools, even once, are far less likely to go on to college (SFP).
- **Making college more affordable** is critical as well. Because most Texas high school graduates attend in-state colleges, **affordability of state schools** is key to increasing college enrollment rates for all students, but especially for low-income, Hispanic and first-generation students (SFP).
Effective Strategies...

National and Texas research suggest additional strategies to increase college enrollments, including:

- Participation in **extracurricular activities**, especially sports or music (Rumberger & Arellano, 2007; King et al. 2007; Schexnayder et al. 2009)

- Enrolling in **dual-credit, college-like and AP courses** (Quint et al. 2008; Bailey et al. 2003; Karp et al. 2007, 2008; Roderick et al. 2006; Adelman 1999; Klopfenstein & Thomas 2005)

- Making **college part of a student’s ‘individual life plan’** via guidance counselor and other interactions (Quint et al. 2008)

- Surrounding students with **adults and peers** who build and support their college aspirations (Tierney et al. 2009)

- Providing **integrated support services/counseling**, especially for those enrolling in 2-year colleges (Grubb 1996)
**Goal**: Increase direct-to-college enrollments by 20,010, to a rate of 64% by 2010.

Now, aiming for a direct-to-college enrollment rate of 72% by 2015.
Chamber Strategy

**Bottoms up**, for leadership, focus and energy
- Austin Community College Connection
- Financial Aid Saturdays
- Common Application to college
- College-readiness assistance for seniors

**Tops down**, focusing local education leaders on college readiness
- Create College Enrollment Managers in each high school in the region
- Advocate for college readiness in state accountability
- Pilot Strategic Compensation and other initiatives
- Create, foster real-time management tools (e.g., Common Application, FAFSA, Student Futures Project)
Metro Austin Direct-to-College Enrollment Rate Up 9 Points

Source: Student Futures Project, THECB, 2003-2009
* Estimate
Getting *THROUGH* College

First, examine recent persistence experience for 2- and 4-year colleges in Central Texas.

Research on persistence and completion — and the factors and strategies that increase them — is not as well developed. Student Futures Project work on persistence/completion is still underway.

Then, identify effective strategies for boosting persistence and completion rates for 4- and 2-year. Factors and strategies likely to vary by type of college and population group: *one-size-fits-all approaches unlikely to succeed.*
Postsecondary Enrollment Over Time, by Graduating Class (SFP)
## Persistence One Year Out, Class of 2007 (SFP)

<table>
<thead>
<tr>
<th>Enrollment Status</th>
<th>Number</th>
<th>Percent of Graduates</th>
<th>Persisted to Fall of 2008</th>
<th>Percent of Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td>6,313</td>
<td>67%</td>
<td>5,117</td>
<td>81%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>456</td>
<td>84%</td>
<td>421</td>
<td>92%</td>
</tr>
<tr>
<td>Black</td>
<td>674</td>
<td>65%</td>
<td>458</td>
<td>68%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1,360</td>
<td>50%</td>
<td>1,004</td>
<td>74%</td>
</tr>
<tr>
<td>White</td>
<td>3,739</td>
<td>76%</td>
<td>3,173</td>
<td>85%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>3,212</td>
<td>71%</td>
<td>2,656</td>
<td>83%</td>
</tr>
<tr>
<td>Male</td>
<td>3,043</td>
<td>65%</td>
<td>2,418</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Family Income Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-income</td>
<td>915</td>
<td>46%</td>
<td>624</td>
<td>68%</td>
</tr>
<tr>
<td>Not Low-income</td>
<td>5,205</td>
<td>76%</td>
<td>4,363</td>
<td>84%</td>
</tr>
<tr>
<td><strong>Initial Enrollment Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Year Institution</td>
<td>2,706</td>
<td></td>
<td>1,828</td>
<td>68%</td>
</tr>
<tr>
<td>4-Year Institution</td>
<td>3,607</td>
<td></td>
<td>3,289</td>
<td>91%</td>
</tr>
<tr>
<td><strong>Initial Enrollment Location</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In State</td>
<td>5,539</td>
<td></td>
<td>4,428</td>
<td>80%</td>
</tr>
<tr>
<td>Out of State</td>
<td>774</td>
<td></td>
<td>689</td>
<td>89%</td>
</tr>
</tbody>
</table>
Persistence Factors

Research on college persistence and completion is underway, including Student Futures Project, MDRC, Urban Institute and Columbia University’s Community College Research Center.

• National studies point to series of important factors (shown at right).
• Limited access to detailed college participation data (e.g., Dev Ed) has limited Texas research.

Positive Factors
+ Parental postsecondary education
+ GPA
+ No. of math, dual-credit and AP classes
+ AP test scores
+ Took college entrance exams
+ Scholarships and grants
+ Parental financial support
+ Cultural social capital
+ Freshman learning communities
+ Pass college-level math/writing courses
+ Completing various credit thresholds
+ Earnings an associates degree

Negative Factors
- Non-Asian minority
- Low-income
- Working fulltime
- Reliance on loans
- Starting at a 2-year college
- Entering academically unprepared
Getting *BEYOND* College

Most of those needing postsecondary education and training already working and well past traditional schooling age: 56% of Austin/Round Rock MSA residents 25+ years of age lack a post-high school degree or certificate.

Public workforce funding is declining and access to financing for adults pursuing postsecondary is very difficult, but there are proven strategies for success:

- **Sectoral workforce strategies via workforce intermediaries**
- **High-road (skills-oriented) workforce development services**
Workforce Strategies

- “Tipping point” for increasing earnings is obtaining a year of college credit, plus a credential or certificate with value in the labor market (Prince & Jenkins, 2005).
- **Sectoral training** implemented by workforce intermediaries with community/technical colleges and others in high-skill, high-wage occupations is a proven strategy for postsecondary success, nationally (Maguire et al., 2010) and in Texas (Glover and King, 2010; Smith et al. 2009, 2010, 2011).
- The **$25M. Every Chance Fund** enacted by 81st Texas Legislature via the Comptroller’s Office fosters sectoral training across the state via workforce intermediaries.
- **Large, lasting statistically significant earnings impacts** for Capital IDEA, a highly successful local workforce intermediary, are illustrative...
Capital IDEA
Earnings Impacts

Source: Smith, King & Schroeder (forthcoming 2011).
High-skill Workforce Training Strategies

Analysis of Texas data shows that workforce development—especially intensive skill-building—yields large returns on investment (ROI) for participants (individuals and employers), taxpayers and society. High-skill, high-wage strategies typically entail skills training conducted via community and technical colleges.

5-Year Costs and Returns for Texas Workforce Services

Source: King et al. 2008
Texas College-readiness Indicators

- **Secondary School-Level**
  - Advanced course/dual-enrollment completion
  - Recommended/Distinguished Achievement Program grads
  - AP/IB results
  - SAT/ACT score results
  - Texas Success Initiative (TSI) results

- **College-Ready Graduates (Student-Level)**
  - Math: qualifying TAKS or SAT/ACT scores
  - English Lang. Arts (ELA): qualifying TAKS or SAT/ACT scores
  - Both: meet qualifications for both Math and ELA

- **College-Level.** TSI recognizes multiple assessments:
  - THEA: math (230), reading (230), writing (220)
  - ASSET: math (38), reading (41), writing (40/6 on essay)
  - COMPASS: math (39), reading (81), writing (59/6)
  - ACCUPLACER: math (63), reading (78), writing (80/6)
College-readiness Indicators ...

Unclear whether changes coming:

- Possible new secondary school-level measure tied to different state assessment tests
- Indicators for graduates may be based on performance on the State of Texas Assessments of Academic Readiness (STAAR)

TSI-related Community College Results (THECB)

- Students enrolling in college direct from high school are meeting TSI standards at higher rates: 42% ready in all 3 areas (2009) v. 37% (2004)
- Students returning to college meeting TSI standards at lower rates: 29% in all 3 areas (2009) v. 36% (2004)
- First-time, degree-seeking community college students of all races/ethnicities meeting TSI at higher rates, but rates remain low: All students, 42%; White, 54%; African-American, 24%; Hispanic, 34% (2009)
- First-time, degree-seeking students taking more rigorous HS curricula met TSI at higher rates: 67% (DAP), 45% (Rec. HS)
Texas Career-Readiness Indicators

- **Secondary School-Level**
  - No standardized measure
  - There are measures related to Career and Technical Education (CTE) courses, including class size, student enrollment, number of teachers, and expenses

- **Career-Ready Graduates (Student-Level)**
  - No standardized measure
  - Information collected on students related to CTE courses taken, including whether a student has taken any CTE course, just one CTE course, part of a ‘coherent sequence’ of CTE courses, or a set of courses qualifying as technical preparation
Career-readiness Indicators ...

- **Secondary-Level**
  - No current bills in the Texas Legislature would create a high school measure of career readiness

- **Career-Ready Graduates (Student Level)**
  - No standardized measures examining whether a student is career-ready are currently being considered by the Texas legislature

However, it’s not clear that a direct measure of career readiness is actually needed for high school seniors/graduates. If most (two-thirds) new and replacement jobs require some level of postsecondary education and/or training, then *college-readiness is tantamount to career readiness*. 
Career-readiness Indicators ...

- ACT, Inc. has created the **National Career Readiness Certificate (NCRC)**, which has been adopted for use by a growing number of states as well as some school systems and districts. It disaggregates career-readiness into three assessments:
  - Applying mathematics
  - Locating information
  - Reading for information

- NCRC *complements* other ACT work-readiness assessments that measure foundational skills (e.g., teamwork and writing) and soft skills (e.g., performance and fit).

- NCRC is especially useful for high school dropouts and those without diplomas beyond traditional school-going years who need a way to *‘signal’ to employers* that they have what it takes to succeed in today’s labor market, as well as for workforce programs and training providers.
Concluding Observations

- Focusing on college preparation can improve postsecondary enrollment for all groups. Experience in recent economic downturn suggests that other strategies likely needed for groups traditionally under-enrolling in college.

- Financial aid—especially for low-income, Hispanic and first-generation students—is critical.

- Need to explore promising interventions for low-income and Hispanic students and better understand relationships between education, training and career pathways. Ray Marshall Center is now working with TWC on this with USDOL funding.

- Evidence on factors and strategies for college persistence/completion less well developed, though similar factors apparent.

- Proven workforce strategies (e.g., sectoral, high-skills) exist but are under-funded.

- College- and career-readiness measures still evolving, the most important being those for college readiness.
For More Information

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