Leaks in the Educational Pipeline

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Roy Mathew, The University of Texas at El Paso

AIR Conference
TAIR 2007 Best Paper Presentation (Updated 5/08)
May 2008
The University of Texas System

- 9 Universities (Academic)
  - 1 Community College / University Partnership
    - Texas Southmost College
    - U.T. Brownsville

- 6 Health-Related Institutions
Enrollment Growth at U.T. System
Fall 2001 to 2006:

- Enrollment increased from 152,197 to 190,903
- An increase of 25.4% or 38,706 students
- In Fall 2005, U.T. System had met 98% of its Closing the Gaps goal
The University of Texas System
Enrollment and Annual Growth Rate
Fall 2001 to Fall 2006

2001 2002 2003 2004 2005 2006

System
Annual Growth
The University of Texas System
First-time in College (FTIC), Academic Institutions
Enrollment and Annual Growth Rate

FTIC Enrollment and Annual Growth Rate

2001 2002 2003 2004 2005 2006

Annual Growth

2.9% 12.9% 4.5% -0.5% -1.1% 5.9%
Why the slow down in Fall 2005?

Here’s what we do know –

✓ Total High School graduates declined slightly between 2003-04 and 2004-05
✓ 2-year and 4-year college growth rates in Texas are slowing down
✓ Enrollment at 2-year public colleges is increasing faster than 4-year colleges
✓ Economy is improving
✓ College costs are increasing
✓ Institutional Factors
Texas High School Graduates

Source: Texas Education Agency
Statewide Enrollment Increases

Source: Texas Higher Education Coordinating Board
The Economy is Improving

Consumer Price Index and Texas Unemployment Rate

Source: Texas Comptroller of Public Accounts
Non-Farm Employment Rate

Source: Texas Comptroller of Public Accounts
College Costs in Texas below National and 10 State Average

Total Price of Attendance at Four-Year Public Institutions

Source: UT System report
Financial Aid in Texas Compared to National and 10 State Average

Percent of First-time, Full-time, Degree-Seeking Undergraduates Receiving Grants 2003-04

Source: UT System report
Institutional Factors

- UT Austin – enrollment caps
- UT Arlington and UT Dallas – decrease in International enrollment
- UT Pan American and UT San Antonio – implemented new admissions standards
Time to Revisit the Educational Pipeline

**What is the educational pipeline?**

Four key transition points

- High School Graduation
- Entry into Higher Education
- Persistence in Higher Education
- Completing Higher Education

Source: The National Center for Public Policy and Higher Education
Texas Compared to the Nation
In 2002, for every 100 9th graders...

<table>
<thead>
<tr>
<th></th>
<th>Texas</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate 4 years later</td>
<td>64</td>
<td>68</td>
</tr>
<tr>
<td>Enter college immediately</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Are still enrolled in sophomore year</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Graduate or complete program within 150% time</td>
<td>13</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: The National Center for Public Policy and Higher Education
Texas Educational Pipeline - Totals
Academic Year 2004-05

- HS 9th graders (01-02): 364,441
- HS Graduates: 239,716
- HS College Prep: 173,336
- SAT/ACT Test Takers: 140,003
- Enrolled 4-year: 58,984
- Enrolled 2-year: 60,408
- SAT 1100+ or ACT 24+: 38,327
- App/Adm 4-yr/Tx Top 10: 18,750
- Enrolled 4-yr/Tx Top 10: 13,382

Source: Texas Education Agency, Texas Higher Education Coordinating Board, TG
Texas Educational Pipeline - Whites
Academic Year 2004-05

- HS 9th graders (01-02): 148,538
- HS Graduates: 113,212 (76%)
- HS College Prep: 83,306 (56%)
- SAT/ACT Test Takers: 72,340 (49%)
- Enrolled 4-year: 33,933
- Enrolled 2-year: 30,694
- SAT 1100+ or ACT 24+: 27,977
- App/Adm 4-yr/Tx Top 10: 10,716
- Enrolled 4-yr/Tx Top 10: 7,867

Source: Texas Education Agency, Texas Higher Education Coordinating Board, TG
Texas Educational Pipeline - African Americans
Academic Year 2004-05

- HS 9th graders (01-02): 55,181
- HS Graduates: 32,811 (60%)
- HS College Prep: 21,278 (39%)
- SAT/ACT Test Takers: 18,143 (33%)
- Enrolled 4-year: 7,793
- Enrolled 2-year: 6,762
- SAT 1100+ or ACT 24+: 1,472
- App/Adm 4-yr/Tx Top 10: 1,410
- Enrolled 4-yr/Tx Top 10: 996

Source: Texas Education Agency, Texas Higher Education Coordinating Board, TG
Texas Educational Pipeline - Hispanics
Academic Year 2004-05

- HS 9th graders (01-02): 150,509
- HS Graduates: 84,566 (56%)
- HS College Prep: 60,939 (41%)
- SAT/ACT Test Takers: 38,093 (25%)
- Enrolled 4-year: 13,618 (23%)
- Enrolled 2-year: 20,927
- SAT 1100+ or ACT 24+: 4,196
- App/Adm 4-yr/Tx Top 10: 4,515
- Enrolled 4-yr/Tx Top 10: 3,075

Source: Texas Education Agency, Texas Higher Education Coordinating Board, TG
“Leaks” in the Pipeline

- 1 out of 3 ninth graders did not graduate from high school
- Less than half of high school graduates enrolled in a Texas College immediately following high school
- Less than one-third of SAT/ACT test takers scored at or above TEA criterion scores, 1100+ (SAT) or 24+ (ACT)
“Leaks” in the Pipeline

Hispanics had the largest 9\textsuperscript{th} grade population, but they had the lowest % of students

- graduating from High School
- taking the SAT/ACT
- attending college immediately after high school
- attending 4-year colleges
Is it important when students enroll in college?

*It depends on the goal* –

The longer students delay college entry, the less likely they will earn a bachelor’s degree within 6 years.

<table>
<thead>
<tr>
<th>No delay</th>
<th>1 year delay</th>
<th>2-4 years delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>53%</td>
<td>30%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: *Waiting to Attend College*
Contribute to Student Success

- “Academically Intense” high school curriculum
- Higher amount of credits in college-level mathematics
- Entering post-secondary education immediately after high school
- Continuous enrollment
- Successful completion of college gateway courses

Source: The Toolbox Revisited
Hinder Student Success

- Earn less than 20 credits at the end of the first calendar year
- Part-time status
- Withdraw from 20 percent or more of attempted courses
- Becoming a parent by age 20

Source: *The Toolbox Revisited*
Economic Impact

In 2004-05, over half of Hispanic high school students who took the college prep classes in Texas were economically disadvantaged.  

Source: THECB

“Today, our highest achieving low-income students actually go directly on to college about the same as our lowest-achieving students from wealthy families”

Source: Promise Abandoned
### College Participation, U.S.
**By Income and Achievement**

<table>
<thead>
<tr>
<th>Achievement Level</th>
<th>Low-Income</th>
<th>High-Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>First (low)</td>
<td>36%</td>
<td>77%</td>
</tr>
<tr>
<td>Second</td>
<td>50</td>
<td>85</td>
</tr>
<tr>
<td>Third</td>
<td>63</td>
<td>90</td>
</tr>
<tr>
<td>Fourth (high)</td>
<td>78</td>
<td>97</td>
</tr>
</tbody>
</table>

Source: Promise Abandoned, NELS:88, Second (1992) and Third (1994) Follow-up
## College Participation by Income, U.S. % of High School Graduates

<table>
<thead>
<tr>
<th></th>
<th>Low(^1)</th>
<th>Middle</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>48%</td>
<td>60%</td>
<td>77%</td>
<td>63%</td>
</tr>
<tr>
<td>2001</td>
<td>50</td>
<td>56</td>
<td>80</td>
<td>62</td>
</tr>
<tr>
<td>2002</td>
<td>51</td>
<td>61</td>
<td>78</td>
<td>65</td>
</tr>
<tr>
<td>2003</td>
<td>53</td>
<td>58</td>
<td>80</td>
<td>64</td>
</tr>
</tbody>
</table>

\(^1\)3-year average due to small sample size.

Source: The Condition of Education 2006
Texas College Prep Graduates Enrolled Immediately after High School

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economically Disadvantaged</td>
<td>47%</td>
<td>45%</td>
</tr>
<tr>
<td>Not Economically Disadvantaged</td>
<td>65%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Source: *Ready, Willing and Unable*
Degree Attainment: National Projections

A recent report, *Mortgaging Our Future*, projects bachelor degrees for college qualified high school graduates:

- Low-income – 43%
- Moderate-income – 50%
- Middle-income – 65%
- High-income – 80%

Note: HS Graduates in 2004, degrees obtained by 2012.

Source: *Mortgaging Our Future*
Financial Barriers

Researchers at the Texas Guaranteed Student Loan Corporation applied these percentages to recent Texas high school graduates and estimated between 22,200 and 47,000 bachelor’s degrees may be lost in Texas due to financial barriers.

Source: Ready, Willing and Unable
### Financial Aid at UT System

**Full-time Undergraduate Students with Need-Based Grant Aid, AY 2005-06**

<table>
<thead>
<tr>
<th></th>
<th>% Receiving Grant Aid</th>
<th>Average % Discount of Total Academic Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlington</td>
<td>37.0%</td>
<td>71.6%</td>
</tr>
<tr>
<td>Austin</td>
<td>46.8</td>
<td>80.8</td>
</tr>
<tr>
<td>Brownsville</td>
<td>57.9</td>
<td>65.1</td>
</tr>
<tr>
<td>Dallas</td>
<td>30.3</td>
<td>61.5</td>
</tr>
<tr>
<td>El Paso</td>
<td>47.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Pan American</td>
<td>65.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Permian Basin</td>
<td>36.3</td>
<td>54.3</td>
</tr>
<tr>
<td>San Antonio</td>
<td>47.0</td>
<td>64.3</td>
</tr>
<tr>
<td>Tyler</td>
<td>42.0</td>
<td>89.1</td>
</tr>
</tbody>
</table>

Source: UT System
As educators – are we doing enough?

❖ More students are taking the College Prep curriculum, but too many students still do not graduate from high school in Texas.

❖ What can we do to encourage more students to enroll in college directly after high school?

❖ How can we motivate students to attend college full-time, continuously to completion? More financial aid? Type of aid?

❖ How will our efforts affect students’ choices?
“Every departure from the traditional path of four years in high school followed immediately by four years of full-time attendance in a four-year college significantly reduces the likelihood of degree attainment”

Source: Promise Abandoned
Sources

• Texas Education Agency, Enrollment and Graduation Reports
• Texas Higher Education Coordinating Board
• Fall 2006 Economic Forecast, Texas Comptroller of Public Accounts
• The National Center for Public Policy, The Educational Pipeline: Big Investment, Big Returns, April 2004.
Sources (continued)

Contact Information

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Institutional and Student Responsibilities in Ensuring the Pathway to Success

Roy Mathew
University of Texas at El Paso
The Toolbox Revisited

High School Recommendations:

• Secondary schools must provide maximum opportunity-to-learn, not merely course titles, but course substance.

• **Postsecondary institutions have got to be active players and reinforcers at the secondary school level.** . . Pep talks, family visits, recruitment tours, and guidance in filling out application and financial aid forms are not enough.

• The first year of postsecondary education has to begin in high school, if not by AP then by the growing dual enrollment movement or other, more structured current efforts. **The academic intensity of the student’s high school curriculum still counts more than anything else in precollegiate history in providing momentum toward completing a bachelor’s degree.**

Source: The Toolbox Revisited, Paths to Degree Completion from High School to College
El Paso Collaborative for Academic Excellence

Founded in 1991, partners include the National Science Foundation, the U.S. Department of Education and The Pew Charitable Trusts, in addition to businesses and organizations in the community and throughout Texas.

Goals of the Collaborative

• To ensure academic success for all students, K-16.
• To ensure that all students graduate from high school prepared to succeed in a four-year college or university.
• To close achievement gaps among different groups of students
How the Collaborative Works:

• **Works with Teachers:** Providing professional development opportunities that encompass all areas of teaching and learning.

• **Works with Schools and Administrators:** Helping schools set high standards, and grow toward high-level, standards-based teaching and learning, and involving principals and administrators in understanding, supporting and participating in the school improvement process.

• **Works with Parents:** Deepening parents’ understanding of how to support high student achievement, preparation for college, and acting to involve more parents with their children’s school.

• **Works with Academic Units:** Supporting innovative, field-based teacher preparation programs, linking university and K-12 faculty to ensure alignment of education along the full K-16 continuum.

• **Works with Key Business and Civic Leaders:** Involving business and community leaders in improving the quality of education at all levels, and helping them to identify strategies that will support high levels of student achievement and increases in college attendance and graduation.

Source: EPCAE website
Impact of the Collaborative
Algebra I: Enrollment and Completion by Grade 9

Source: TEA PEIMS data
Algebra II: Enrollment and Completion by Grade 11

Source: TEA PEIMS data

<table>
<thead>
<tr>
<th>Year</th>
<th>Hispanic Enrolled</th>
<th>Hispanic Passed</th>
<th>White Enrolled</th>
<th>White Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-1993</td>
<td>82.0%</td>
<td>64.0%</td>
<td>40.0%</td>
<td></td>
</tr>
<tr>
<td>2003-2004</td>
<td>93.6%</td>
<td>87.7%</td>
<td>88.0%</td>
<td>91.5%</td>
</tr>
</tbody>
</table>
TAAS/TAKS Math Results (Exit Level)

Results shown for Grade 11 in Spring 2005 is at panel recommendation. State TAKS passing standards in 2005 are at a higher level since the Spring of 2003.
Chemistry: Enrollment and Completion by Grade 11

Source: TEA PEIMS data
Physics: Enrollment and Completion by Grade 12

Source: Texas Education Agency PEIMS Data (El Paso, Ysleta and Socorro ISD’s)
Completion of Recommended High School Program or Higher
El Paso Districts & Statewide
Class of 2004

Source: TEA - http://www.tea.state.tx.us/adhoc rpt/; Graduate Reports.

All Students, Hispanic, White, African American
Graduation Rates for Selected Texas School Districts

San Antonio ISD: 59.5% (1998), 60.4% (2004)
Austin ISD: 63.1% (1998), 71.5% (2004)
Dallas ISD: 57.1% (1998), 64.1% (2004)
El Paso Urban Districts: 73.5% (1998), 79.8% (2004)

Source: Texas Education Agency - AEIS Reports; Graduation Rate calculated based on the number of graduates divided by the total number of 8th graders enrolled 5 years prior.
Access and Affordability
Institutional Responsibilities

• restrain increases in the price of college and offset necessary increases with need-based aid
• moderate the trend—at all levels—toward merit-based aid and increasing reliance on loans

Source: *Mortgaging Our Future* A REPORT OF THE ADVISORY COMMITTEE ON STUDENT FINANCIAL ASSISTANCE
## Affordability

**UT System Full-time Undergraduate Students with Need-Based Grant Aid, AY 2006-07**

<table>
<thead>
<tr>
<th>UT System Institution</th>
<th>Average In-State Total Academic Cost, Fall 2006 - Spring 2007 combined w/ fees</th>
<th>% Students Receiving Need-Based Grant Aid</th>
<th>Average % Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlington</td>
<td>$6,500</td>
<td>39.00%</td>
<td>94.80%</td>
</tr>
<tr>
<td>Austin</td>
<td>8,024</td>
<td>46.7</td>
<td>78.5</td>
</tr>
<tr>
<td>Brownsville</td>
<td>4,140</td>
<td>69.7</td>
<td>62.3</td>
</tr>
<tr>
<td>Dallas</td>
<td>7,690</td>
<td>33.6</td>
<td>57.2</td>
</tr>
<tr>
<td><strong>El Paso</strong></td>
<td><strong>5,361</strong></td>
<td><strong>46.7</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Pan American</td>
<td>4,264</td>
<td>71.6</td>
<td>100</td>
</tr>
<tr>
<td>Permian Basin</td>
<td>4,659</td>
<td>46.9</td>
<td>79.4</td>
</tr>
<tr>
<td>San Antonio</td>
<td>6,732</td>
<td>43.7</td>
<td>62.8</td>
</tr>
<tr>
<td>Tyler</td>
<td>5,188</td>
<td>42.6</td>
<td>88</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>$6,573</strong></td>
<td><strong>47.80%</strong></td>
<td><strong>77.90%</strong></td>
</tr>
</tbody>
</table>

Average Student Debt Load

UTEP is ranked 3rd in the ‘Least Debt’ list of National Universities in *U.S. News and World Reports* “America’s Best Colleges 2006 Edition,” which calculates the average debt of students upon graduation.

<table>
<thead>
<tr>
<th>National Universities</th>
<th>Average Graduate Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Princeton University (NJ)</td>
<td>$4,030</td>
</tr>
<tr>
<td>University of Hawaii-Manoa</td>
<td>$5,379</td>
</tr>
<tr>
<td><strong>University of Texas- El Paso</strong></td>
<td><strong>$6,041</strong></td>
</tr>
<tr>
<td>California Institute of Technology</td>
<td>$7,400</td>
</tr>
<tr>
<td>N.M. Inst. of Mining and Tech.</td>
<td>$8,788</td>
</tr>
<tr>
<td>Harvard University (MA)</td>
<td>$9,640</td>
</tr>
<tr>
<td>University of Utah</td>
<td>$11,496</td>
</tr>
<tr>
<td>Univ. of North Carolina-Chapel Hill</td>
<td>$11,751</td>
</tr>
<tr>
<td>Univ. of Southern Mississippi</td>
<td>$12,073</td>
</tr>
<tr>
<td>Univ. of California-Davis</td>
<td>$12,231</td>
</tr>
</tbody>
</table>
## UTEP Demographics

### Enrollment by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Non-Hispanic</td>
<td>2,124</td>
<td>10.5%</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>547</td>
<td>2.7%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>14,826</td>
<td>73.6%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>226</td>
<td>1.1%</td>
</tr>
<tr>
<td>Am. Indian or Alaskan</td>
<td>44</td>
<td>0.2%</td>
</tr>
<tr>
<td>International*</td>
<td>2291</td>
<td>11.4%</td>
</tr>
</tbody>
</table>

*Includes Mexican Nat’l. students

### Total Enrollment by Residence

<table>
<thead>
<tr>
<th>Residence</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso County</td>
<td>16705</td>
<td>83.9%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>243</td>
<td>1.2%</td>
</tr>
<tr>
<td>Mexico</td>
<td>1801</td>
<td>8.9%</td>
</tr>
<tr>
<td>Other Int’l</td>
<td>431</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

### Percent of financial aid awardees with family income of $20,000 or less: 43%

### Percent of UTEP students with reported family income of $20,000 or less: 33%

### Nationally:

- % of students with family income of less than $20,000 at large public research (doctoral) universities: 10%
- % of students with family income of less than $20,000 at small &mid-sized private colleges and universities: 12%
- % of students with family income less than $20,000 at community colleges: 29%

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1 Council of Independent Colleges: [http://www.cic.edu/makingthecase/data/access/income/index.asp](http://www.cic.edu/makingthecase/data/access/income/index.asp)
2 Lumina Foundation Focus, Fall 2005, p.5
Ensuring Success
Institutional Responsibilities

- It matters whether institutions **focus on getting their students engaged and connected** to the campus, particularly in the critical freshman year.
- It matters whether there is a genuine **emphasis on the quality of undergraduate teaching and learning**, because academic success and degree completion go hand in hand.
- It matters whether administrators and faculty **monitor student progress**, taking advantage of new data systems to tease out patterns of student success.

Source: *Promise Abandoned*, Katie Haycock
UTEP’s Institutional Success

• The National Survey of Student Engagement and the American Association for Higher Education identified UTEP as one of the 20 colleges and universities that was “unusually effective in promoting student success”. [1]

• UTEP is identified a Model Institution for Excellence by the National Science Foundation for our success in creating educational opportunities for non-traditional students; there are only six MIE institutions in the country.

• UTEP’s College of Engineering was identified as the top engineering school for Hispanics by Hispanic Business Magazine. The magazine says that UTEP “is changing the face of engineering and producing highly trained graduates heavily recruited by the industry’s leading companies”. [2]

Degrees Awarded

- UTEP was ranked in the top ten in the United States in granting baccalaureate degrees to Hispanics in 2005-2006. [3]
- UTEP was one of the top ten institutions in the number of baccalaureate degrees awarded to Hispanics in Biological and Biomedical Sciences, Engineering, and Health Professions and Related Clinical Sciences. [4]
- UTEP was ranked in the top ten in the United States in granting Master’s degrees to Hispanics in 2005-2006, and ranked in the top ten in awarding Master’s degrees to Hispanics in Education and Engineering.

Monitoring Students’ Progress and Success

More than 100 Data tools are have been developed

• Retention and Graduation
• Student History
• Time to degree
• Academic Performance
### Student Tracker: Retention and Graduation Rates

#### Center for Institutional Evaluation, Research and Planning

**Search by**
- Student Search by Entry Term
- Student History Search
- Retention and Graduation Rates

#### Search and Help

**Cohort**
- Summer & Fall

**Gender/Ethnicity**
- All

**First Time/Transfer**
- First Time

**Full/Part Time**
- Full Time

**Level**
- Undergraduate

**Classification**
- All

**Degree Seeking(CB)**
- All

**Degree Seeking(Major)**
- All

**Degree Seeking(IPEDS)**
- All

**Major**
- All

**Show**
- Percentages

*Degree Seeking and Major work only after 1998*

#### Retention

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Fall 1996</th>
<th>Fall 1997</th>
<th>Fall 1998</th>
<th>Fall 1999</th>
<th>Fall 2000</th>
<th>Fall 2001</th>
<th>Fall 2002</th>
<th>Fall 2003</th>
<th>Fall 2004</th>
<th>Fall 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Year</td>
<td>65.2%</td>
<td>64.5%</td>
<td>69.6%</td>
<td>69.6%</td>
<td>66.1%</td>
<td>66.0%</td>
<td>66.7%</td>
<td>67.9%</td>
<td>67.6%</td>
<td></td>
</tr>
<tr>
<td>Two Years</td>
<td>52.1%</td>
<td>59.5%</td>
<td>56.0%</td>
<td>57.3%</td>
<td>59.0%</td>
<td>55.4%</td>
<td>57.6%</td>
<td>54.1%</td>
<td>56.0%</td>
<td></td>
</tr>
<tr>
<td>Three Years</td>
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### Student Tracker: Student Search by Entry Term

**Center for Institutional Evaluation, Research and Planning**

**Student Entry Characteristics**
- Entry Term
- Student PIDM
- Student ID
- Gender
- Ethnicity
- Age
- First-Time/Part-Time
- Transfer Code
- Classification

**Student ID Number**
- Gender/Ethnicity

**Entrance Term**
- Spring 1999

**First Time/Transfer**
- Full Time

**Full/Part Time**
- First Time

**Degree Seeking**
- Undergraduate

**Level**
- All

**Major**
- All

---

**Enter Entry Term(s) and PIDM(s)**

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**Data Table**

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Center for Institutional Evaluation, Research, and Planning
The University of Texas at El Paso
500 West University Ave, El Paso, TX 79968
Phone: 915-747-5117 Fax: 915-747-5415
Send Comments to cierp@utep.edu
The Paradox
Choice

“Student responsibility (the intersection of choice with opportunity) is a major theme. . . some recommendations for students, who are partners in their own education fate, who shouldn’t wait around for someone else to do something for them, and who are rarely addressed in studies of attainment,” Toolbox Revisited, p. xxvi.

Students are explicit, rather than implicit. . . They are respected adults playing large roles in their own destinies. . . While we trust that school and college actions will not leave them behind, they have equal responsibilities.

Source: Toolbox Revisited
Main Research Questions

1. What factors affect student departure?

2. What factors impact students’ return after an initial stopout?

3. What factors affect on-time graduation?

4. How can the institution identify (at the time of admission) students at-risk of departure?
Results: Factors That Explain Departure

Predictors of Departure:

- Low semester GPA will increase the risk of departure.
- Over time, the effect of semester GPA decreases.
- Failing a course will increase the risk of departure.
- Part-time enrollment increases the risk of departure.
- Financial aid (loans, grants, work study) will reduce the risk of departure.
- Students who stop-out are more likely to leave again.
Results: Factors That Explain Departure

• Timing Factors Involved in Departure
  – Risk of departure is higher in earlier semesters
  – Risk of departure is higher in spring semesters than fall semesters

• Upon Re-enrollment:
  – Risk of departure for returnees is higher in the semesters immediately after returning
  – Risk of departure for returnees increases with the length of the stop-out period
Factors That Explain Graduation

Competing risk model results:

- Stopping-out decreases the probability of graduation
- Receiving financial aid (loans, grants and work study) increases the probability of graduation
- Failing any class decreases the probability of graduation
- Enrolling and passing a developmental course did not decrease a student’s chance of graduation significantly
- Higher cumulative GPA increases the probability of graduation
Assigning Risk Score

- **Low risk** group: Students with 0 risk score
  - directly matriculated from high school
  - top quartile of high school class
  - with college level math placement
  - intend to work less than 20 hours per week

- **Medium risk** group: Students with a score of less than 1.15 are assigned into medium risk group

- **High risk** group: Students with a score of 1.15 or higher are assigned into high risk group
Survival Trends Associated with Risk Groups

Kaplan-Meier Survival Curve for the Entire Sample

High Risk
Medium Risk
Low Risk
Retention Trends for Risk Groups

• One year retention rates:
  – High Risk: 48%,
  – Medium Risk: 74%
  – Low Risk: 87%

• Three year retention rates:
  – High Risk: 20%
  – Medium Risk: 48%
  – Low Risk 67%
Graduation Trends for Risk Groups

• Six year graduation rates:
  – High Risk: 9%
  – Medium Risk: 30%
  – Low Risk: 60%

• Graduation rate upon persisting through the first year with cumulative GPA of at least 2.0
  – High Risk: 25%
  – Medium Risk: 43%
  – Low Risk: 70%
Summary

• The major findings of this study shows the significant effect of:
  – Timing and duration of enrollment, departure and re-enrollment
  – Financial aid
  – Academic performance over time

• The study also:
  – Reveals the stratification of the student population into three risk groups with distinctive survival patterns
Implications and Further Research

• Implications
  – Evaluate efficacy of current interventions for each risk group, and modify interventions
  – Develop tools and methods to track progress during critical periods

• Areas for further research
  – Advance understanding of students within each risk group
  – Explore how ecosystems affect student performance
  – Explore factors that explain the success of transfer students
Changing the Face of Higher Education

“We are here to provide opportunities to a group of people who represent America's future. And it's such an awesome responsibility. And it's also an enormous satisfaction when you go to graduation and you see in front of you this group of graduates whose lives you know are going to be completely changed as a result of what's happened here. That's enormously exciting.”

--Diana Natalicio
President of UTEP
Contact Information

Roy Mathew, Ph.D.
Director
Center for Institutional Evaluation, Research and Planning
The University of Texas at El Paso
Administration Building, Room 318
(915) 747-5117
rmathew@utep.edu

This AIR 2008 Presentation is available at:
http://cierp.utep.edu