Environmental Assessment
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I. Demographics

DESCRIPTION OF DATA
- This section includes historical data for population, age, race and ethnicity as well as population projections at the national, state, local and university levels.
- Population projections through 2020 are included for consistency with forecasts of high school graduates by WICHE and projections of university enrollment prepared for the Governor’s Task Force on Higher Education.
- There is a major weakness in the projections resulting from new information learned from data released from Census 2000. Due to the large number of immigrants to the United States during the 1990s, Census 2000 reported larger-than-expected total population and significantly higher numbers of Hispanic individuals throughout the United States, including Arizona. As a result, any forecasts relying on population data need to be updated to incorporate this new information. New projections are not yet available.

SOURCES OF DATA
As noted above, the principal source of data for the demographics section is Census 1990 and Census 2000.

United States
- Population projections from Census Bureau.

Arizona

Maricopa County/Phoenix Metropolitan Statistical Area

Arizona State University
- An Historical Review of Minority Students, Faculty and Staff, 1990-2000.
United States

Total Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>281,421,906</td>
<td>13.2%</td>
</tr>
<tr>
<td>1990</td>
<td>248,709,873</td>
<td></td>
</tr>
</tbody>
</table>

Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49%</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>51%</td>
<td></td>
</tr>
</tbody>
</table>

Racial Composition*

<table>
<thead>
<tr>
<th>Race</th>
<th>1990</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>White*</td>
<td>80%</td>
<td>75%</td>
</tr>
<tr>
<td>Black</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Asian</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>American Indian</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Other*</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>N/A</td>
<td>2%</td>
</tr>
</tbody>
</table>

* Federal government considers Hispanic to be ethnicity, not race. 48% of Hispanics reported race as white, and 42% reported some other race in Census 2000.

Population Projection

- Population in millions:
  - 1990: 248,709,873
  - 2000: 281,421,906

Ethnic Composition

- Hispanic: 1990: 9.0%, 2000: 12.5%
- Non-Hispanic: 1990: 91.0%, 2000: 87.5%

Population Growth Rankings

Age Breakdown

- Change from 1990 to 2000:
  - Hispanic: 58%
  - Non-Hispanic: 9%

Sources: Census 1990 and 2000
Arizona

State Population Rank

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Rank</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>5,130,632</td>
<td>20th</td>
<td>40%</td>
</tr>
<tr>
<td>1990</td>
<td>3,665,228</td>
<td>24th</td>
<td>35%</td>
</tr>
</tbody>
</table>

Sex

- Male: 50%
- Female: 50%

Racial Composition, 2000*

<table>
<thead>
<tr>
<th>Race</th>
<th>Arizona</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>76%</td>
<td>75%</td>
</tr>
<tr>
<td>Black</td>
<td>3%</td>
<td>12%</td>
</tr>
<tr>
<td>Asian</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Am. Indian</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>

* Federal government considers Hispanic to be ethnicity, not race.

Ethnic Composition, 2000

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Arizona</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>25.3%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>74.7%</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

Population Projection for Selected Age Cohorts


Counts Population Change

Age Breakdown

Sources: Census 1990 and 2000
Maricopa County / Phoenix

Maricopa County Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>3,072,149</td>
<td>45%</td>
</tr>
<tr>
<td>1990</td>
<td>2,122,101</td>
<td></td>
</tr>
</tbody>
</table>

Sex

- Male: 51%
- Female: 49%

Phoenix Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000*</td>
<td>1,321,045</td>
<td>34%</td>
</tr>
<tr>
<td>1990</td>
<td>983,403</td>
<td></td>
</tr>
</tbody>
</table>

* Phoenix became 6th largest U.S. city.

Population Growth of Largest AZ Cities/Towns

<table>
<thead>
<tr>
<th>City</th>
<th>Maricopa Co.</th>
<th>AZ</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilbert</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avondale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peoria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chandler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Havasu Cty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scottsdale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glendale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mesa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoenix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescott</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescott</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tucson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flagstaff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tempe</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Racial Composition, 2000*

- White: 77% 76% 75%
- Black: 4% 3% 12%
- Asian: 2% 2% 4%
- Am. Indian: 2% 5% 1%
- Other: 12% 12% 6%
- Two or more races: 3% 3% 2%

* Federal government considers Hispanic to be ethnicity, not race.

Ethnic Composition, 2000

- Hispanic: 24.8% 25.3% 12.5%
- Non-Hispanic: 75.2% 74.7% 87.5%

Population Projection for Selected Age Cohorts


Top Hispanic Cities

Source: Census 1990 and 2000

Age Breakdown

Source: Census 1990 and 2000
ASU Demographics (based on Enrollment)

Fall 2000 Population

Headcount Enrollment by Level

<table>
<thead>
<tr>
<th>Level</th>
<th>Main</th>
<th>West</th>
<th>East</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>33,985</td>
<td>3,785</td>
<td>1,529</td>
</tr>
<tr>
<td>Graduate</td>
<td>10,141</td>
<td>1,540</td>
<td>410</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>44,126</td>
<td>5,325</td>
<td>1,939</td>
</tr>
</tbody>
</table>

Percentage Enrollment by Level

<table>
<thead>
<tr>
<th>Level</th>
<th>Main</th>
<th>West</th>
<th>East</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>77.0%</td>
<td>71.1%</td>
<td>78.9%</td>
</tr>
<tr>
<td>Graduate</td>
<td>23.0%</td>
<td>28.9%</td>
<td>21.1%</td>
</tr>
</tbody>
</table>

Fall 2000 Race/Ethnicity Total University (All three campuses combined)

Extended Education Class Registrations (Preliminary Total University)

Sources: Arizona State University Main Facts 2000–2001
An Historical Review of Minority Students, Faculty and Staff, 1990–2000
ASU Main Faculty and Staff

Full-time Employees

- Total Employees: 3,061
- Clerical/Crafts: 818 (40.5%)
- Faculty: 1,125 (63.3%)
- Professionals: 981 (43.6%)
- Exec./Admin.: 137 (58.3%)

Race/Ethnicity

- White: 79.1%
- Hispanic: 10.5%
- Asian Am: 4.6%
- Am. Indian: 0.4%
- African Am: 3.2%
- Am. Indian: 0.4%

New Faculty Hires*

- Men: 3,221
  - Clerical/Crafts: 1,203 (59.5%)
  - Faculty: 652 (36.7%)
  - Professionals: 1,268 (56.4%)
  - Exec./Admin.: 98 (41.7%)
- Women: 3,061
  - Clerical/Crafts: 1,203 (59.5%)
  - Faculty: 652 (36.7%)
  - Professionals: 1,268 (56.4%)
  - Exec./Admin.: 98 (41.7%)

Fall 2000 Faculty Salaries*

- $40,000 – $49,999: 15.4%
- $50,000 and over: 84.3%

Faculty

<table>
<thead>
<tr>
<th>Department</th>
<th>Fall 1996</th>
<th>Fall 2000</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>56</td>
<td>61</td>
<td>5</td>
<td>8.9%</td>
</tr>
<tr>
<td>Business</td>
<td>173</td>
<td>176</td>
<td>3</td>
<td>1.7%</td>
</tr>
<tr>
<td>Education</td>
<td>111</td>
<td>110</td>
<td>-1</td>
<td>-0.9%</td>
</tr>
<tr>
<td>Engineering</td>
<td>177</td>
<td>208</td>
<td>31</td>
<td>17.5%</td>
</tr>
<tr>
<td>Extended Ed</td>
<td>18</td>
<td>16</td>
<td>-2</td>
<td>-11.1%</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>153</td>
<td>159</td>
<td>6</td>
<td>3.9%</td>
</tr>
<tr>
<td>Honors</td>
<td>5</td>
<td>11</td>
<td>6</td>
<td>120.0%</td>
</tr>
<tr>
<td>Law</td>
<td>33</td>
<td>36</td>
<td>3</td>
<td>9.1%</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td>755</td>
<td>804</td>
<td>49</td>
<td>6.5%</td>
</tr>
<tr>
<td>Nursing</td>
<td>52</td>
<td>55</td>
<td>3</td>
<td>5.8%</td>
</tr>
<tr>
<td>Public Programs*</td>
<td>117</td>
<td>128</td>
<td>38</td>
<td>9.4%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>13</td>
<td>9</td>
<td>225.0%</td>
</tr>
<tr>
<td>Total</td>
<td>1,627</td>
<td>1,777</td>
<td>150</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

*1996 includes Social Work

ASU West Faculty and Staff*

Full-time Employees

Race/Ethnicity

Fall 2000 Employees

Fall 2000 Employees by Gender

New Faculty Hires¹

Fall 2000 Faculty Salaries²

Fall 2000 Tenure Status

Faculty¹

Fall 1996 Fall 2000 Change

Arts & Sciences 52 50 -2

Collaborative Prog 6 — -6

Education 32 33 +1

Human Services 22 30 +8

Management 35 29 -6

Other 2 — -2

Total 149 142 -7

¹ Faculty reflects Tenured/Tenure-track only

Fall 2000 Tenure Status

¹ Faculty Hiring and Salary reflects Tenured/Tenure-track only

*Data reported by Institutional Analysis based on EEO definitions.

An Historical Review of Minority Students, Faculty and Staff, 1990-2000
ASU East Faculty and Staff*

Full-time Employees

Race/Ethnicity

Fall 2000 Employees

New Faculty Hires*

Fall 2000 Faculty Salaries*

Fall 2000 Tenure Status

Faculty*

<table>
<thead>
<tr>
<th></th>
<th>Fall 1997</th>
<th>Fall 2000</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agribusiness/Res Mgmt</td>
<td>11</td>
<td>17</td>
<td>+6</td>
</tr>
<tr>
<td>East College</td>
<td>N/A</td>
<td>10</td>
<td>+10</td>
</tr>
<tr>
<td>Technology/Applied Sciences</td>
<td>28</td>
<td>29</td>
<td>+1</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>56</td>
<td>+17</td>
</tr>
</tbody>
</table>

Fall 2000 Employees by Gender

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerical/Crafts</td>
<td>12</td>
<td>23.5%</td>
</tr>
<tr>
<td>Faculty</td>
<td>59</td>
<td>77.6%</td>
</tr>
<tr>
<td>Professionals</td>
<td>19</td>
<td>44.2%</td>
</tr>
<tr>
<td>Exec./Admin.</td>
<td>17</td>
<td>65.4%</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>54.6%</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerical/Crafts</td>
<td>39</td>
<td>76.5%</td>
</tr>
<tr>
<td>Faculty</td>
<td>17</td>
<td>22.4%</td>
</tr>
<tr>
<td>Professionals</td>
<td>24</td>
<td>55.8%</td>
</tr>
<tr>
<td>Exec./Admin.</td>
<td>9</td>
<td>34.6%</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>45.4%</td>
</tr>
</tbody>
</table>

Fall 2000 Faculty Salaries*

Fall 2000 Tenure Status

1Faculty Hiring and Salary reflects Tenured/ Tenure-track only

*Data reported by Institutional Analysis based on EEO definitions.

Source:
An Historical Review of Minority Students, Faculty and Staff, 1990–2000
Implications for ASU

DRIVING FORCES:

• Baby-boom generation and their children will have continued significant impacts on societal trends over time.
• Arizona population grew rapidly in the 1990s, but the rate of growth in the next decade may be somewhat slower than the last.
• Arizona is projected to become more ethnically diverse. WICHE projects almost half of Arizona high school graduates in 2020 will be Hispanic.

ASU IMPLICATIONS:

• The University will need innovative solutions to meet the projected enrollment growth challenge over the next 20 years.
• Higher education funding may be a challenge as society ages, and competition for scarce public resources is intensified.
• The University will need to coach and train new and younger employees as it faces accelerating faculty and staff retirements and associated loss of institutional knowledge.
• The University must continue to recognize and support student and employee diversity.
• ASU recognizes diversity has moved beyond affirmative action and is now an essential element of competitive strength and organizational success for the state’s economy as well as the institution.
• To be successful in attracting and graduating underrepresented minorities will require more aggressive multicultural strategies in K-University.
II. Higher Education

DESCRIPTION OF DATA

United States
- This section includes historical data on college entrance rates, bachelor's degrees awarded and college continuation rates at the national level.
- Historical data is also provided for public, four-year institutions offering distance learning courses.
- Projections of national high school graduates, including details for major racial and ethnic groups, from 1997 to 2012 are included.
- Historical data on distance learning is included, and projections on the size of the e-learning market in 2003 are illustrated.
- Historical data on earnings and unemployment as well as educational attainment correlates are provided.
- There may be a major weakness in the projections resulting from new information learned from data released from Census 2000. Due to the large number of immigrants to the United States during the 1990s, Census 2000 reported larger-than-expected total population and significantly higher numbers of Hispanic individuals throughout the United States, including Arizona. As a result, any forecasts relying on population data need to be updated to incorporate this new information. New projections are not yet available.

Arizona
- Various measures of Arizona performance relevant to undergraduate education are included in the form of national rankings.
- Projections of Arizona high school graduates, including details for major racial and ethnic groups, from 1997 to 2012 as well as total university enrollment through 2020 are included.
- Finally, information on the number of Research 1 universities serving major metropolitan areas is shown.
- There may be a major weakness in the projections resulting from new information learned from data released from Census 2000. Due to the large number of immigrants to the United States during the 1990s, Census 2000 reported larger-than-expected total population and significantly higher numbers of Hispanic individuals throughout the United States, including Arizona. As a result, any forecasts relying on population data need to be updated to incorporate this new information. New projections are not yet available.

SOURCES OF DATA

United States
- Postsecondary Education Opportunity website.
- Postsecondary Education Opportunity website, “Where Have All the Men Gone?,” October 2000.
- WICHE, Knocking at the College Door, February 1998.
- Oblinger presentation at WACUBO 2001.
- Postsecondary Education Opportunity, Newsletter, March 1999.

Arizona
- Postsecondary Education Opportunity, Newsletter, July 2000.
- Supplement to Arizona at Risk: An Urgent Call For Action, December 2000.
- WICHE, Knocking at the College Door, February 1998.

Phoenix
- National Center for Education Statistics, Integrated Postsecondary Education Data System.
United States
The higher education industry is changing at a pace much more rapid than in the past.

![College Entrance Rates for High School Graduates](image1)

Source: *Postsecondary Education Opportunity.*

![Bachelor's Degrees Awarded](image2)

Source: *Postsecondary Education Opportunity.*

![College Continuation Rates](image3)

Source: *Postsecondary Education Opportunity.*

![Selected Projections of U.S. High School Graduates](image4)

Source: WICHE, *Knocking At the College Door*

![Higher Education E-Learning Market Projection](image5)

Source: Oblinger, *WACUBO 2001*

![Recent Increase in Public Four-Year Institutions Offering Distance Learning Courses](image6)

Source: *Postsecondary Education Opportunity*
After 1993-94, high school graduates are projected to rise steadily to a high of 3.2 million in 2007-08.

A gradual trend downward results in 3.0 million in 2011-12, just below the 1978-79 peak of 3.1 million.

Higher Education Impact on Society
Individual and Societal Benefits From Higher Education Are Clear

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Degree</td>
<td>$72,700</td>
<td>1.4%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>$62,400</td>
<td>1.3%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>$50,000</td>
<td>1.6%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>$40,100</td>
<td>1.9%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>$31,700</td>
<td>2.5%</td>
</tr>
<tr>
<td>Some College</td>
<td>$30,400</td>
<td>2.2%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>$26,000</td>
<td>4.1%</td>
</tr>
<tr>
<td>No High School Diploma</td>
<td>$19,700</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

Comparison of Earnings and Unemployment Rates by Educational Attainment

Correlates of Educational Attainment

<table>
<thead>
<tr>
<th>Activity</th>
<th>High School Graduate</th>
<th>College Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance at various arts activities</td>
<td>19.6%</td>
<td>35.9%</td>
</tr>
<tr>
<td>Participation in exercise program</td>
<td>55.0%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Read newspaper at least once a week</td>
<td>85.0%</td>
<td>91.0%</td>
</tr>
<tr>
<td>Read one or more magazines regularly</td>
<td>86.0%</td>
<td>94.0%</td>
</tr>
<tr>
<td>Read any books in last six months</td>
<td>57.0%</td>
<td>83.0%</td>
</tr>
<tr>
<td>Correctly answer questions about government</td>
<td>43.0%</td>
<td>84.0%</td>
</tr>
<tr>
<td>Voted in presidential election (1996)</td>
<td>51.7%</td>
<td>77.0%</td>
</tr>
<tr>
<td>Participate in on-going community service</td>
<td>33.0%</td>
<td>52.0%</td>
</tr>
</tbody>
</table>


Arizona
Reflects High School Graduate Trends Similar To That Of the Nation, But Growth Rates Are Stronger

While being #8 in % of enrollment in public schools, Arizona ranks in the bottom of the states for many education measures. Source: CQ’s State Fact Finder, 2001 and Postsecondary Education Opportunity.

From 2000 to 2020, public university enrollments are projected to increase nearly 50%. Source: Supplement to Arizona at Risk: An Urgent Call For Action.
Phoenix Metropolitan Statistical Area and Research I Universities
Each Economic Competitor’s Metro Is Served By Several Institutions

New York
Yeshiva
Rockefeller
NYU
Cornell
Columbia
SUNY-SB
Princeton

San Francisco
UC San Francisco
US Berkeley
Stanford

Philadelphia
Penn
Temple

Boston
Harvard
MIT
BU
Tufts

Detroit
Wayne State
U Michigan

Phoenix
ASU

Los Angeles
UCLA
CalTech
USC
UCI

Chicago
U Illinois, Chicago
U Chicago
Northwestern

Washington, D.C./Baltimore
U Md
Johns Hopkins
Implications for ASU

DRIVING FORCES:
United States
- Federal government is exhibiting growing interest in higher education policy.
- The industry is changing with growing alternatives from public and private sources, innovations in information technologies, and increased emphasis on strategic alliances.
- There is increasing emphasis on developing various competencies and skills (communications, team building, critical thinking, global perspective) and an expectation that universities accept responsibility for the overall quality of their graduates.
- Total high school graduates in the United States are projected to rise to 3.2 million in 2008, a post-WWII peak.
- Competition for faculty and staff is on a national scale and is based on the total compensation package.

Arizona
- The industry is changing with growing alternatives from public and private sources, innovations in information technologies, and increased emphasis on strategic alliances.
- There is increasing emphasis on developing various competencies and skills (communications, team building, critical thinking, global perspective) and an expectation that universities accept responsibility for the overall quality of their graduates.
- Teaching approaches must actively involve students in the learning process and place greater emphasis on student success.
- Arizona currently ranks in the bottom for K-12 class size, high school completions, and college continuation.
- Arizona high school graduates are projected by WICHE to grow from 39,000 in 1998-99 to 59,000 in 2020.
- WICHE projects almost half of Arizona high school graduates in 2020 will be Hispanic.
- Recent Arizona enrollment forecasts project about 150,000 students at public universities in 2020.

ASU IMPLICATIONS:
- Operating with limited resources, the University must increase access to higher education.
- The University must identify its role within the expanding set of higher education alternatives and emphasize its distinctiveness.
- The University needs to implement programs that increase student success and improve retention/graduation.
- The University must continue to expand basic research at the cutting edge and enhance pathways from knowledge discovery to market applications.
- To be successful in attracting and graduating underrepresented minorities will require more aggressive multicultural strategies in K-University.
- K-Universities must continue to demonstrate excellence, accountability, and contributions to the Arizona economy and society.
III. Economy & Budget

DESCRIPTION OF DATA
The following data are included:

National
- Time series data for historical and projected growth in real gross domestic product, employment and the consumer price index through 2002.
- Historical data on federal funds interest rates.
- Increases in funding by program or recipient agency in Bush administration budget request to Congress for FY 02.

Arizona
- Historical and projected data for growth in personal income and employment through 2002.
- Rankings of the technology component of the Arizona economy.
- Historical data on state general fund appropriations to the university system and total state general fund appropriations.
- Projected university allocation of Proposition 301 funding.
- Various measures of Arizona performance relevant to the higher education state budget are included in the form of national rankings.

Phoenixinx
- Actual and projected growth for population, personal income, employment and retail sales.
- Actual and projected growth for manufacturing, construction and services employment.

Arizona State University
- Latest year data for state appropriations to higher education and ASU Main, ASU revenues and federal funding by agency.
- Historical data for ten years for sponsored project funding.

SOURCES OF DATA
National
- Arizona Joint Legislative Budget Committee.
- Federal Reserve Bank of Dallas.

Arizona
- Arizona Joint Legislative Budget Committee website and Appropriations Report.
- Progressive Policy Institute website.
- Postsecondary Education Opportunity, Newsletter, July 2000.
- Arizona Board of Regents website.
- Arizona Department of Economic Security, data from website.

Phoenix
- Arizona Department of Economic Security, data from website.
- ASU, *Greater Phoenix Blue Chip Economic Forecast*.

Arizona State University
Economy & Budget - United States
Longest Economic Expansion In U. S. History
Bush Administration Budget Proposals Are Being Considered By the Congress

National Economic Indicators

- Real GDP Growth
- Employment Growth
- Consumer Price Index

Source: Joint Legislative Budget Committee.

Bush Budget Proposes $60.8 Billion Increase, or 4.6%, for Student Aid in FY 02

- Campus-based Programs
- Pell Grants
- Other Loans
- Direct Loans
- Guaranteed Loans


Federal Funds Interest Rates

Source: Federal Reserve Bank of Dallas.

Bush Budget Proposes $49.7 Billion Increase, or 5%, for Science & Technology in FY 02

- USDA
- USDOI
- NIH
- NASA
- DOD
- DOE
- NSF
- Other

**Economy & Budget - Arizona**

Even With One of Nation’s Strongest Economies, the Proportion of State Appropriations To Higher Education Fell

Arizona is Ranked In Bottom Five Nationally For State Support of Higher Education, Even Though Tuition Is Low

Source: Joint Legislative Budget Committee

---

**Arizona Economic Indicators**

<table>
<thead>
<tr>
<th>Year</th>
<th>Personal Income Growth</th>
<th>Employment Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How weak will state economy be?

Source: Joint Legislative Budget Committee

---

**Participation in Knowledge-based Industries**

- United States: 59.2%
- Arizona: 48.1%
- Phoenix: 41.6%

Source: Progressive Policy Institute

---

**Arizona Higher Education State Budget Performance Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Aid</td>
<td>45</td>
</tr>
<tr>
<td>Tuition &amp; Fees</td>
<td>45</td>
</tr>
<tr>
<td>Spending/Capita</td>
<td>48</td>
</tr>
</tbody>
</table>

Rank Low Among 50 States


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**State General Fund Appropriations**

![Graph showing State General Fund Appropriations over time](image)

Sources: Arizona Board of Regents & Joint Legislative Budget Committee

---

**Univ. System Total**

- 1978: $0
- 1980: $1,000
- 1982: $2,000
- 1984: $3,000
- 1986: $4,000
- 1988: $5,000
- 1990: $6,000
- 1992: $7,000

Source: Office of Strategic Planning & Policy Analysis

---

**Universities Share of Proposition 301 Funding Allocation**

![Graph showing universities share of Proposition 301 funding allocation](image)

Source: Arizona Board of Regents
Employment Markets - Top Ten Occupations With Highest Projected Growth From 1998 To 2008
Projected Employment Change in Thousands
(excludes replacement job growth)

National Labor Market Outlook

- Teacher Assistants: 577
- Personal Care/Health Aides: 563
- Computer Support: 556
- Registered Nurses: 493
- Office Clerks: 463
- Truck Drivers: 439
- Gen. Managers/Executives: 433
- Cashiers: 425
- Teacher Assistants: 411
- Systems Analysts: 375

Source: Bureau of Labor Statistics

Arizona Labor Market Outlook

- Janitors & CLEANERS: 20
- Systems Analysts: 19
- Waiters & Waitresses: 17
- Laborers, landscaping & groundskeeping: 14
- Office & admin. support supervisors/managers: 13
- Receptionists & Information Clerks: 11
- General managers & top executives: 11
- Telemarketers, door-to-door sales workers, etc.: 10
- Cashiers: 8

Source: Arizona Department of Economic Security

Phoenix-Mesa MSA Labor Market Outlook

- Computer Support Specialists: 8
- Janitors & Cleaners: 8
- Systems Analysts: 8
- Laborers, landscaping & groundskeeping: 10
- Office & Administrative Support Supervisors: 10
- Receptionists & Information clerks: 11
- Adjustment clerks: 13
- General Managers and Top Executives: 14
- Cashiers: 14
- Telemarketers, door to door sales workers, etc.: 17

Source: Arizona Department of Economic Security

ASU Office of Strategic Planning & Policy Analysis
ASU Budget

Excludes value of student waivers

Total General Fund Revenues were $356.9 million, excluding
value of student waivers in 1999-2000

ASU Main State Appropriations as a Percent of
Total Revenues

Source: ASU Main Facts, 2000-2001

Office of Strategic Planning & Policy Analysis

Total Other Fund Revenues were $309.9 million in 1999-2000

Includes General Fund, Other Fund & Mandatory Transfers

1999-2000 Major Federal Funding Award
Sponsors

Current Operating Fund, General Fund Revenue,
1999-2000

Current Operating Fund, Other Fund Revenues,
1999-2000

Ten-year Trend In Sponsored Project Funding

$ in millions

Tuition & Fees
Govt. Contracts
Prvt Gifts & Contracts
Inv. Income
Aux. Enterpr.
Other

Commece
DOD
Education
DOE
HHS
NASA
NSF
Other

0 20 40 60 80 100 120


Tuition & Fees
Institutional Support
Research
Public Serv
Instruction
Student Serv
Scholarships
Auxiliary
Mandatory Transfers

5% 2% 11% 41% 12% 3% 19% 7%


ASU Main Total Current Operating Fund
Expenditures

ASU Budget

Includes General Fund, Other Fund & Mandatory Transfers

Total General Fund Revenues were $356.9 million, excluding
value of student waivers in 1999-2000

Source: ASU Main Facts, 2000-2001
Implications for ASU

**DRIVING FORCES:**

**United States**
- United States economic growth is slowing, but currently appears on course to avoid a full-blown recession.
- Even as globalization is contributing to the competitiveness of our economies, there is growing interest in hemispheric trade and a United States/Mexico open border concept.
- Competitiveness and productivity demands require life-long learning.

**Arizona**
- Like the national economy, Arizona economic growth is slowing, but currently appears on course to avoid a full-blown recession.
- Competitiveness and productivity demands require life-long learning.
- Arizona economy has larger proportional technology sector than nation as a whole, contributing to strong wage and salary and personal income growth.
- Arizona’s economic prosperity has not been equitably distributed. Arizona ranks above the national average in percentage of population living in poverty and low on conditions of children index.
- Weakening economy may result in increasing enrollment this fall, but increasing need for financial aid, less sponsored student funding, fewer gifts and donations, and potentially weakening government funding.
- The competition for public funds and tax cuts has become more acute, further squeezing funding for higher education.
- State revenue and expenditure structures continue to place university funding at risk, particularly during an economic downturn.
- Arizona state and local government reliance on transaction privilege (sales) tax puts future revenue growth at risk.
- General Fund appropriations to higher education as a percentage of total appropriations have declined steadily.
- Arizona ranks low among all states in per-pupil state support of higher education and state undergraduate financial aid.
- Arizona is not in top-ten ranking of states for receipt of federal research and development funding.
- Deferred maintenance issues are creating serious infrastructure problems.
- Proposition 301 shows strong public support for Arizona education.
- Arizona higher education is considered a good value because of low tuition levels compared to other states.

**ASU IMPLICATIONS:**
- The University must demonstrate how it is adding value, especially in helping to address major policy and societal problems and in supporting strategic technology for Arizona’s future.
- The University can strengthen its contributions to the Arizona and Phoenix metropolitan economies by offering research and skills training to both high technology, knowledge-based and traditional economic industries. ASU research and skills training can help propel economic growth and insulate against some impacts of economic downturn.
- The University needs to increase its delivery of nontraditional educational and other outreach programs which improve the well-being of Arizona citizens.
- The University needs to further internationalize the campuses and curriculum.
- Arizona and ASU are well positioned to participate in binational, continental or hemispheric policy and economic developments.
- The University must continue to work with stakeholders to improve the diversity and reliability of higher education revenue streams, including state appropriations. Creative fund-raising and financing efforts must be continued to supplement current sources of funds (corporate partnerships, technology transfer, private donations, bond structuring, etc.).
- The University must work with K-12 and community colleges to prepare a skilled workforce required to continue to attract high technology, knowledge-based industries.
- During periods of constrained resources, re-engineering educational and administrative processes and other improvements in efficiency will be an important source of funding for new initiatives. The University must continue to emphasize to all faculty, staff and students the on-going need for cost containment and productivity enhancements.
- The State of Arizona and the universities need to collaborate to increase Arizona’s share of federal research and development funds.
IV. Technology

DESCRIPTION OF DATA
• This section includes data on utilization of technology at four-year doctoral institutions.
• Comparisons of historical and projected data regarding institutional technology priorities, acceptance of new technologies and technologies for remote connection are included.

SOURCES OF DATA
Technology
Technology Is Changing How Every Industry Does Business


Top Institutional IT Priorities

1995
- Replacing aging equipment
- Updating obsolete software
- Supporting migration to Windows 95
- Web training for faculty & staff

2000
- Retaining current IT personnel
- Helping IT personnel stay current
- Clarifying goals & campus plans for IT
- Budget model for aging equipment
- Using web resources in instruction
- Electronic commerce

Source: Educause, Campus Computing Project.

Full-time Faculty & Staff Utilizing Technology At Four-Year Doctoral Institutions, Fall 1998

Access to Internet 100%
Used e-mail to communicate with students 80%
Used course-specific web site 40%


Technologies For Remote Connection, 1993

Projection of Technology for Remote Connection, 2001

Projection of Technology for Remote Connection, 2005

Source: Business Week, June 25, 2001 using data from Jupiter Communications.
Implications for ASU

DRIVING FORCES:

- Information technology will allow increased competition from current and new institutions, including the corporate community.
- The impact of technology on the changing needs for work skills means that graduates must continuously adapt through lifelong learning.
- The potential of technology to improve learning, extend access and lower cost must overcome barriers to redesign the learning paradigm.
- Research is key to the future of the national, state and metropolitan economies, and new knowledge is being developed exponentially.
- Technological changes are requiring changes to processes, structures and resource allocation.
- Technology is changing performance and accountability expectations.
- Technology infrastructure requires significant investment and anticipation of what to buy/build.
- Technology and its applications are creating new data use and privacy issues.

ASU IMPLICATIONS:

- ASU will continue to embrace technology change in serving the nation, Arizona, and the Phoenix metropolitan area.
- The best way to extend the effective teaching capacity of the faculty is to reconsider the present assumptions about teaching and learning, especially about how technology can contribute to the learning process.
- The University must develop new distance-learning vehicles, such as Arizona Regents University.
- The University will continue to increase its availability of technology-delivered courses and web or multimedia-enhanced courses.
- Universities that have unique competencies will be able to share their faculty and other resources with collaborating community colleges, universities, and industry and develop innovative programs that are beyond the capacity of any one institution.
- ASU must accelerate integration of knowledge discovery in the application of technology into curriculum and pedagogical reform to yield higher skill development.
- ASU will continue to face challenges as state-of-the-art equipment and infrastructure are critical to support leading-edge research and training of students.
- ASU will continue to be a leader in improving management operations through the use of technology.
- ASU will continue to address privacy concerns.
V. Political Landscape

DESCRIPTION OF DATA
• This section includes data on political representation in the Arizona legislature, legislative turnover resulting from the 2000 general election and term limits and reapportionment.

SOURCES OF DATA
• U.S. Census Bureau, Congressional Apportionment, July 2001.
• Arizona Senate website.
• Arizona House of Representatives website.
• Congressional Quarterly, CQ’s State Fact Finder 2001.
• Arizona Republic, August 10, 2001.
Arizona ranked 4th in the nation in percentage of new legislators after the 2000 election. First election influenced by term limits.

Source: CQ’s State Fact Finder 2001.

Arizona Term Limits

<table>
<thead>
<tr>
<th>Governor</th>
<th>Senate</th>
<th>House of Representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 years</td>
<td>8 years</td>
<td>8 years</td>
</tr>
</tbody>
</table>

Arizona ranked 6th in the nation for term limits for House members.

Source: CQ’s State Fact Finder 2001.
Implications for ASU

DRIVING FORCES:

United States:
- Recent power shift in the United States Senate is projected by some analysts to increase funding available to higher education.
- President Bush’s education initiatives are currently focusing on K-12, although the recently enacted tax package had components which may both positively and negatively influence higher education.
- Due to potential retirements, a significant number of United States Supreme Court appointments may be made by President Bush.
- As a result of population increases evident in Census 2000 and the associated reapportionment of the U.S. House of Representatives, Arizona’s representatives will increase from 6 to 8. Arizona, Florida, Georgia and Texas will see the largest seat gains, at two per state.

Arizona:
- Arizona higher education governance is streamlined compared to other states.
- In the last general election, membership in Arizona Senate was equally divided between Republicans and Democrats.
- The Independent Redistricting Commission in proposing a redistricting plan expected to result in greater Hispanic representation.
- Major political offices will be focus of upcoming state campaigns, including the Governor and State Attorney General.

ASU Implications:
- ASU must continue to operate effectively in the midst of significant political changes at the federal and state levels.
- Performance results and attention to accountability can demonstrate success and value of the University.
- ASU knowledge and expertise can assist stakeholders and change agents.