## Appendix B - PhD Gap Analysis

The Doctoral Faculty Commission (DFC) projected the demand and supply of doctoral faculty in business to 2012. These projections are based on the middle case of the Department of Education projections of degrees awarded and assumptions about business education under three different scenarios: Best Case, Status Quo, and Worst Case.

Table B.1. Department of Education Projections

| Year | Low |  |  | Middle |  |  | High |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BACH | MAST | DOCT | BACH | MAST | DOCT | BACH | MAST | DOCT |
| 2001 | $1,268,000$ | 475,000 | 44,900 | $1,255,000$ | 471,000 | 44,000 | $1,291,000$ | 480,000 | 45,700 |
| 2002 | $1,282,000$ | 468,000 | 44,900 | $1,259,000$ | 451,000 | 43,700 | $1,298,000$ | 486,000 | 46,100 |
| 2003 | $1,301,000$ | 468,000 | 45,000 | $1,284,000$ | 455,000 | 43,800 | $1,334,000$ | 481,000 | 46,300 |
| 2004 | $1,322,000$ | 467,000 | 45,000 | $1,289,000$ | 457,000 | 43,500 | $1,335,000$ | 477,000 | 46,700 |
| 2005 | $1,327,000$ | 470,000 | 45,100 | $1,313,000$ | 460,000 | 43,500 | $1,340,000$ | 480,000 | 46,800 |
| 2006 | $1,343,000$ | 473,000 | 45,400 | $1,329,000$ | 463,000 | 43,800 | $1,356,000$ | 483,000 | 46,900 |
| 2007 | $1,353,000$ | 477,000 | 45,600 | $1,339,000$ | 467,000 | 44,000 | $1,365,000$ | 487,000 | 47,100 |
| 2008 | $1,368,000$ | 480,000 | 45,800 | $1,354,000$ | 470,000 | 44,100 | $1,381,000$ | 490,000 | 47,300 |
| 2009 | $1,382,000$ | 484,000 | 45,900 | $1,368,000$ | 473,000 | 44,200 | $1,396,000$ | 494,000 | 47,500 |
| 2010 | $1,397,000$ | 488,000 | 46,100 | $1,382,000$ | 477,000 | 44,400 | $1,410,000$ | 498,000 | 47,700 |
| 2011 | $1,414,000$ | 491,000 | 46,300 | $1,399,000$ | 481,000 | 44,700 | $1,428,000$ | 503,000 | 47,900 |
| 2012 | $1,437,000$ | 501,000 | 46,800 | $1,423,000$ | 491,000 | 45,100 | $1,437,000$ | 511,000 | 48,400 |

Table B.2. Assumptions - Three Scenarios

| Variable | Scenario |  |  |
| :--- | ---: | ---: | ---: |
|  | Best <br> Case | Status <br> Quo | Worst <br> Case |
| Business share of total bachelors degrees | $20.0 \%$ | $21.0 \%$ | $22.0 \%$ |
| Business share of total master's degrees | $24.0 \%$ | $25.0 \%$ | $26.0 \%$ |
| Business share of total doctorate degrees | $2.9 \%$ | $2.7 \%$ | $2.5 \%$ |
| Accredited institution share of business bachelors degrees | $55.0 \%$ | $56.0 \%$ | $57.0 \%$ |
| Accredited institution share of business master's degrees | $60.0 \%$ | $62.0 \%$ | $64.0 \%$ |
| Accredited institution share of business doctorate degrees | $81.0 \%$ | $83.0 \%$ | $85.0 \%$ |
| Non-accredited institution share of business bachelors degrees | $45.0 \%$ | $44.0 \%$ | $43.0 \%$ |
| Non-accredited institution share of business master's degrees | $40.0 \%$ | $38.0 \%$ | $36.0 \%$ |
| Non-accredited institution share of business doctorate degrees | $19.0 \%$ | $17.0 \%$ | $15.0 \%$ |
| Ratio of total degrees awarded to full-time faculty - Accredited institutions | 11.0 | 10.0 | 9.0 |
| Ratio of total degrees awarded to full-time faculty - non-accredited inst. | 14.0 | 13.0 | 12.0 |
| Percent of full-time faculty with doctoral degrees - Accredited inst. | $80.0 \%$ | $81.0 \%$ | $82.0 \%$ |
| Percent of full-time faculty with doctoral degrees - non-accredited inst. | $60.0 \%$ | $62.0 \%$ | $64.0 \%$ |
| Initial percent of doctorate faculty positions filled | $99.0 \%$ | $99.0 \%$ | $98.5 \%$ |
| Percent of doctoral degree faculty retiring annually | $2.0 \%$ | $2.1 \%$ | $2.5 \%$ |
| Percent of total doctorate degrees classified as research doctorates | $80.0 \%$ | $80.0 \%$ | $80.0 \%$ |
| Percent of doctorate recipients entering academe | $63.0 \%$ | $62.0 \%$ | $61.0 \%$ |

Table B.3. Projections of Business Degrees Awarded - Best Case Scenario

| Year | Business Total |  |  | Accredited |  |  | Non-Accredited |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BACH | MAST | DOCT | BACH | MAST | DOCT | BACH | MAST | DOCT |
| 2001 | 253,600 | 114,000 | 1,302 | 139,480 | 68,400 | 1,055 | 114,120 | 45,600 | 247 |
| 2002 | 256,400 | 112,320 | 1,302 | 141,020 | 67,392 | 1,055 | 115,380 | 44,928 | 247 |
| 2003 | 260,200 | 112,320 | 1,305 | 143,110 | 67,392 | 1,057 | 117,090 | 44,928 | 248 |
| 2004 | 264,400 | 112,080 | 1,305 | 145,420 | 67,248 | 1,057 | 118,980 | 44,832 | 248 |
| 2005 | 265,400 | 112,800 | 1,308 | 145,970 | 67,680 | 1,059 | 119,430 | 45,120 | 249 |
| 2006 | 268,600 | 113,520 | 1,317 | 147,730 | 68,112 | 1,066 | 120,870 | 45,408 | 250 |
| 2007 | 270,600 | 114,480 | 1,322 | 148,830 | 68,688 | 1,071 | 121,770 | 45,792 | 251 |
| 2008 | 273,600 | 115,200 | 1,328 | 150,480 | 69,120 | 1,076 | 123,120 | 46,080 | 252 |
| 2009 | 276,400 | 116,160 | 1,331 | 152,020 | 69,696 | 1,078 | 124,380 | 46,464 | 253 |
| 2010 | 279,400 | 117,120 | 1,337 | 153,670 | 70,272 | 1,083 | 125,730 | 46,848 | 254 |
| 2011 | 282,800 | 117,840 | 1,343 | 155,540 | 70,704 | 1,088 | 127,260 | 47,136 | 255 |
| 2012 | 287,400 | 120,240 | 1,357 | 158,070 | 72,144 | 1,099 | 129,330 | 48,096 | 258 |

Table B.4. Projections of Doctoral Faculty Gap - Best Case Scenario

|  | Projected Number of <br> Full-Time Faculty <br> Members | Projected Number of <br> Full-Time Doctoral <br> Faculty | Projected <br> Doctoral <br> Faculty <br> Demand | Projected <br> Actual <br> Doctoral <br> Faculty | Projected <br> Number of <br> Doctoral <br> Faculty <br> Retirements | Projected <br> Number of <br> New <br> Academic <br> Doctoral <br> Faculty | Projected <br> Gap |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Accred | NonAccred | Accred | NonAccred | -221 |  |  |  |  |
| 2001 | 18,994 | 11,426 | 15,195 | 6,856 | 22,051 | 21,830 | 437 | 656 | -22 |
| 2002 | 19,042 | 11,468 | 15,234 | 6,881 | 22,115 | 22,050 | 441 | 656 | -65 |
| 2003 | 19,233 | 11,590 | 15,386 | 6,954 | 22,340 | 22,265 | 445 | 658 | -75 |
| 2004 | 19,430 | 11,719 | 15,544 | 7,031 | 22,575 | 22,478 | 450 | 658 | -97 |
| 2005 | 19,519 | 11,771 | 15,615 | 7,063 | 22,678 | 22,686 | 454 | 659 | 8 |
| 2006 | 19,719 | 11,895 | 15,775 | 7,137 | 22,912 | 22,891 | 458 | 664 | -21 |
| 2007 | 19,872 | 11,987 | 15,897 | 7,192 | 23,089 | 23,097 | 462 | 666 | 8 |
| 2008 | 20,061 | 12,104 | 16,049 | 7,262 | 23,311 | 23,302 | 466 | 669 | -10 |
| 2009 | 20,254 | 12,221 | 16,203 | 7,333 | 23,536 | 23,505 | 470 | 671 | -31 |
| 2010 | 20,457 | 12,345 | 16,365 | 7,407 | 23,773 | 23,706 | 474 | 674 | -67 |
| 2011 | 20,667 | 12,475 | 16,533 | 7,485 | 24,018 | 23,906 | 478 | 677 | -113 |
| 2012 | 21,028 | 12,692 | 16,823 | 7,615 | 24,438 | 24,104 | 482 | 684 | -334 |
| Total |  |  |  |  |  |  | 5516 | 7992 |  |

Table B.5. Projections of Business Degrees Awarded - Status Quo Scenario

| Year | Business Total |  |  | Accredited |  |  | Non-Accredited |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BACH | MAST | DOCT | BACH | MAST | DOCT | BACH | MAST | DOCT |
| 2001 | 266,280 | 118,750 | 1,212 | 149,117 | 73,625 | 1,006 | 117,163 | 45,125 | 206 |
| 2002 | 269,220 | 117,000 | 1,212 | 150,763 | 72,540 | 1,006 | 118,457 | 44,460 | 206 |
| 2003 | 273,210 | 117,000 | 1,215 | 152,998 | 72,540 | 1,008 | 120,212 | 44,460 | 207 |
| 2004 | 277,620 | 116,750 | 1,215 | 155,467 | 72,385 | 1,008 | 122,153 | 44,365 | 207 |
| 2005 | 278,670 | 117,500 | 1,218 | 156,055 | 72,850 | 1,011 | 122,615 | 44,650 | 207 |
| 2006 | 282,030 | 118,250 | 1,226 | 157,937 | 73,315 | 1,017 | 124,093 | 44,935 | 208 |
| 2007 | 284,130 | 119,250 | 1,231 | 159,113 | 73,935 | 1,022 | 125,017 | 45,315 | 209 |
| 2008 | 287,280 | 120,000 | 1,237 | 160,877 | 74,400 | 1,026 | 126,403 | 45,600 | 210 |
| 2009 | 290,220 | 121,000 | 1,239 | 162,523 | 75,020 | 1,029 | 127,697 | 45,980 | 211 |
| 2010 | 293,370 | 122,000 | 1,245 | 164,287 | 75,640 | 1,033 | 129,083 | 46,360 | 212 |
| 2011 | 296,940 | 122,750 | 1,250 | 166,286 | 76,105 | 1,038 | 130,654 | 46,645 | 213 |
| 2012 | 301,770 | 125,250 | 1,264 | 168,991 | 77,655 | 1,049 | 132,779 | 47,595 | 215 |

Table B.6. Projections of Doctoral Faculty Gap - Status Quo Scenario

| Year | Projected Number of <br> Full-Time Faculty <br> Members | Projected Number of <br> Full-Time Doctoral <br> Faculty | Projected <br> Doctoral <br> Faculty <br> Demand | Projected <br> Actual <br> Doctoral <br> Faculty | Projected <br> Number of <br> Doctoral <br> Faculty <br> Retirements | Projected <br> Number of <br> New <br> Academic <br> Doctoral <br> Faculty | Projected <br> Gap |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Accred | NonAccred | Accred | NonAccred | -259 |  |  |  |  |
|  | 22,375 | 12,500 | 18,124 | 7,750 | 25,873 | 25,615 | 544 | 601 | -259 |
| 2002 | 22,431 | 12,548 | 18,169 | 7,780 | 25,949 | 25,672 | 546 | 601 | -277 |
| 2003 | 22,655 | 12,683 | 18,350 | 7,863 | 26,214 | 25,727 | 547 | 603 | -486 |
| 2004 | 22,886 | 12,825 | 18,538 | 7,951 | 26,489 | 25,783 | 548 | 603 | -706 |
| 2005 | 22,992 | 12,882 | 18,623 | 7,987 | 26,610 | 25,838 | 549 | 604 | -772 |
| 2006 | 23,227 | 13,018 | 18,814 | 8,071 | 26,885 | 25,893 | 550 | 608 | -992 |
| 2007 | 23,407 | 13,119 | 18,960 | 8,134 | 27,093 | 25,951 | 551 | 611 | $-1,142$ |
| 2008 | 23,630 | 13,247 | 19,141 | 8,213 | 27,354 | 26,010 | 553 | 613 | $-1,344$ |
| 2009 | 23,857 | 13,376 | 19,324 | 8,293 | 27,617 | 26,071 | 554 | 615 | $-1,547$ |
| 2010 | 24,096 | 13,512 | 19,518 | 8,377 | 27,895 | 26,131 | 555 | 617 | $-1,764$ |
| 2011 | 24,343 | 13,655 | 19,718 | 8,466 | 28,184 | 26,193 | 557 | 620 | $-1,990$ |
| 2012 | 24,769 | 13,891 | 20,063 | 8,613 | 28,676 | 26,257 | 558 | 627 | $-2,419$ |
| Total |  |  |  |  |  |  | 6,612 | 7,323 |  |

Table B.7. Projections of Business Degrees Awarded - Worst Case Scenario

| Year | Business Total |  |  | Accredited |  |  | Non-Accredited |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BACH | MAST | DOCT | BACH | MAST | DOCT | BACH | MAST | DOCT |
| 2001 | 278,960 | 123,500 | 1,123 | 159,007 | 79,040 | 954 | 119,953 | 44,460 | 168 |
| 2002 | 282,040 | 121,680 | 1,123 | 160,763 | 77,875 | 954 | 121,277 | 43,805 | 168 |
| 2003 | 286,220 | 121,680 | 1,125 | 163,145 | 77,875 | 956 | 123,075 | 43,805 | 169 |
| 2004 | 290,840 | 121,420 | 1,125 | 165,779 | 77,709 | 956 | 125,061 | 43,711 | 169 |
| 2005 | 291,940 | 122,200 | 1,128 | 166,406 | 78,208 | 958 | 125,534 | 43,992 | 169 |
| 2006 | 295,460 | 122,980 | 1,135 | 168,412 | 78,707 | 965 | 127,048 | 44,273 | 170 |
| 2007 | 297,660 | 124,020 | 1,140 | 169,666 | 79,373 | 969 | 127,994 | 44,647 | 171 |
| 2008 | 300,960 | 124,800 | 1,145 | 171,547 | 79,872 | 973 | 129,413 | 44,928 | 172 |
| 2009 | 304,040 | 125,840 | 1,148 | 173,303 | 80,538 | 975 | 130,737 | 45,302 | 172 |
| 2010 | 307,340 | 126,880 | 1,153 | 175,184 | 81,203 | 980 | 132,156 | 45,677 | 173 |
| 2011 | 311,080 | 127,660 | 1,158 | 177,316 | 81,702 | 984 | 133,764 | 45,958 | 174 |
| 2012 | 316,140 | 130,260 | 1,170 | 180,200 | 83,366 | 995 | 135,940 | 46,894 | 176 |

Table B.8. Projections of Doctoral Faculty Gap - Worst Case Scenario

| Year | Projected Number of <br> Full-Time Faculty <br> Members | Projected Number of <br> Full-Time Doctoral <br> Faculty | Projected <br> Doctoral <br> Faculty <br> Demand | Projected <br> Actual <br> Doctoral <br> Faculty | Projected <br> Number of <br> Doctoral <br> Faculty <br> Retirements | Projected <br> Number of <br> New <br> Academic <br> Doctoral <br> Faculty | Projected <br> Gap |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Accred | NonAccred | Accred | NonAccred |  |  |  |  |  |
|  | 26,556 | 13,715 | 21,776 | 8,778 | 30,553 | 30,095 | 752 | 548 | -458 |
| 2002 | 26,621 | 13,771 | 21,830 | 8,813 | 30,643 | 29,890 | 747 | 548 | -752 |
| 2003 | 26,886 | 13,921 | 22,047 | 8,909 | 30,956 | 29,691 | 742 | 549 | $-1,265$ |
| 2004 | 27,160 | 14,078 | 22,272 | 9,010 | 31,282 | 29,498 | 737 | 549 | $-1,784$ |
| 2005 | 27,286 | 14,141 | 22,374 | 9,050 | 31,425 | 29,309 | 733 | 550 | $-2,116$ |
| 2006 | 27,565 | 14,291 | 22,603 | 9,146 | 31,749 | 29,127 | 728 | 554 | $-2,623$ |
| 2007 | 27,779 | 14,401 | 22,779 | 9,217 | 31,995 | 28,952 | 724 | 556 | $-3,043$ |
| 2008 | 28,044 | 14,543 | 22,996 | 9,307 | 32,303 | 28,785 | 720 | 559 | $-3,518$ |
| 2009 | 28,313 | 14,684 | 23,217 | 9,398 | 32,615 | 28,624 | 716 | 560 | $-3,990$ |
| 2010 | 28,596 | 14,834 | 23,449 | 9,494 | 32,943 | 28,468 | 712 | 562 | $-4,474$ |
| 2011 | 28,889 | 14,991 | 23,689 | 9,594 | 33,283 | 28,319 | 708 | 565 | $-4,964$ |
| 2012 | 29,396 | 15,251 | 24,104 | 9,760 | 33,865 | 28,176 | 704 | 571 | $-5,689$ |
| Total |  |  |  |  |  |  | 8,723 | 6,671 |  |

