Four-Year University Considerations on Building Transfer Student Retention and Graduation Rate Reports

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Why We Should Report on Transfer Students

- They are a big part of our nation's graduates
  - Some 20% of new 4-year students graduate from another institution (Adelman, 2006)
  - Nationally, about 60% of traditional-age 2-year transfers earn a baccalaureate (Adelman, 2006)
- Their performance tends to go unmeasured
  - IPEDS only measures fall new freshmen and their performance
  - Common Data Set ignores their performance
  - Rankings and guides follow CDS and propagate those statistics
- They deserve a parallel "Right to Know"
  - Athletes somewhat get this via NCAA requirements
  - Era of accountability it's only a matter of time for HEOA2 or WASC to ask for it anyway
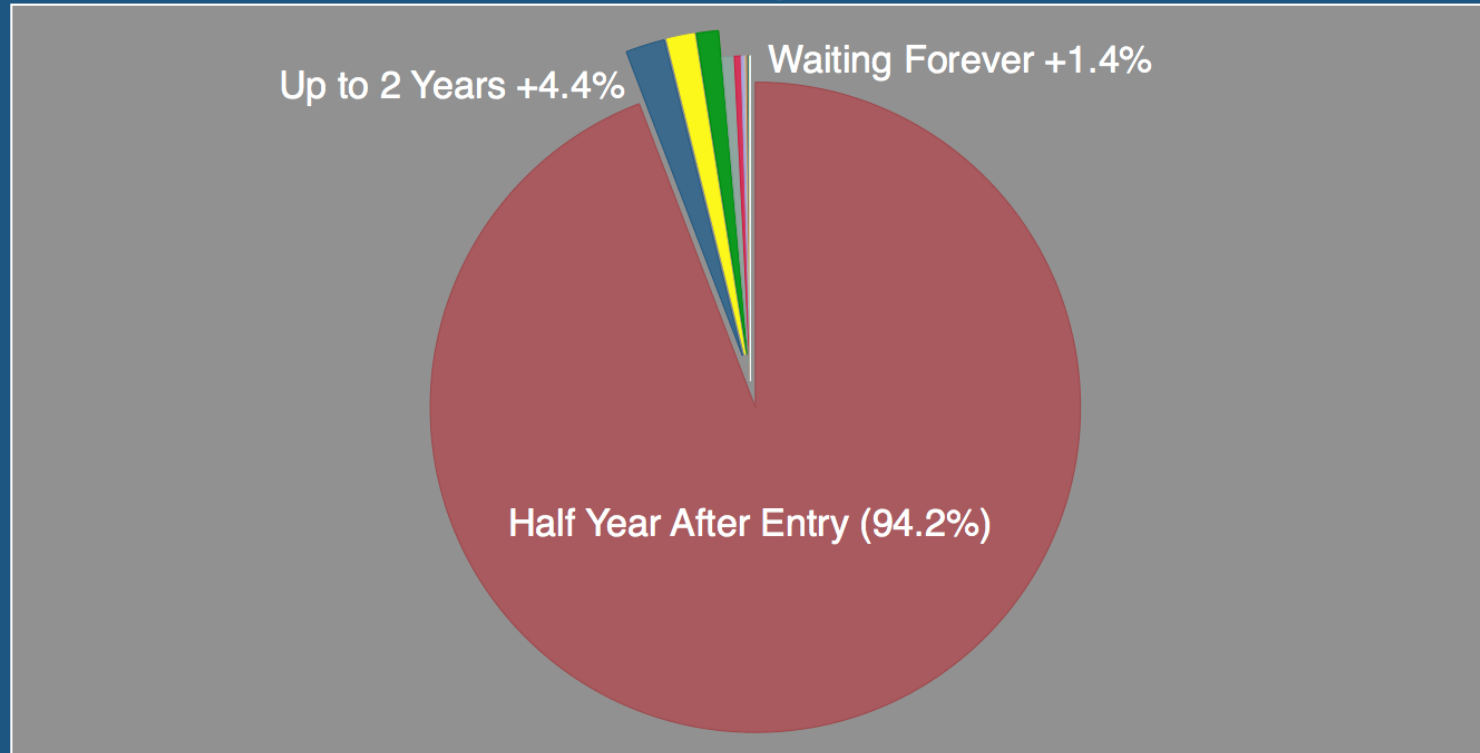
- Heterogeneous experiences (and possibly outcomes)
  - 2-year vs. 4-year origin
  - Public vs. private experience
  - Any number of prior institutions (transiency)
  - 0-90 credits transferred
  - Varying transfer GPA
- Unclear definition of where a transfer student is from
  - Last institution (admissions perspective)
  - Student's strongest affiliation
  - Earned most credits
- Delays in transcripts getting forwarded and entered

Thanks SHRTRIT and SHRTRCR

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What is the Delay in Transcript Information?

Transferred Credits Coded By Semester of Database Entry
Transfer Students Entering Fall 1999 to Fall 2005

Up to 2 Years +4.4%

Waiting Forever +1.4%

Half Year After Entry (94.2%)

Credits Entered in Nth Semester
- 1st
- 2nd
- 3rd
- 4th

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96% of transfers earned half or more units from one school

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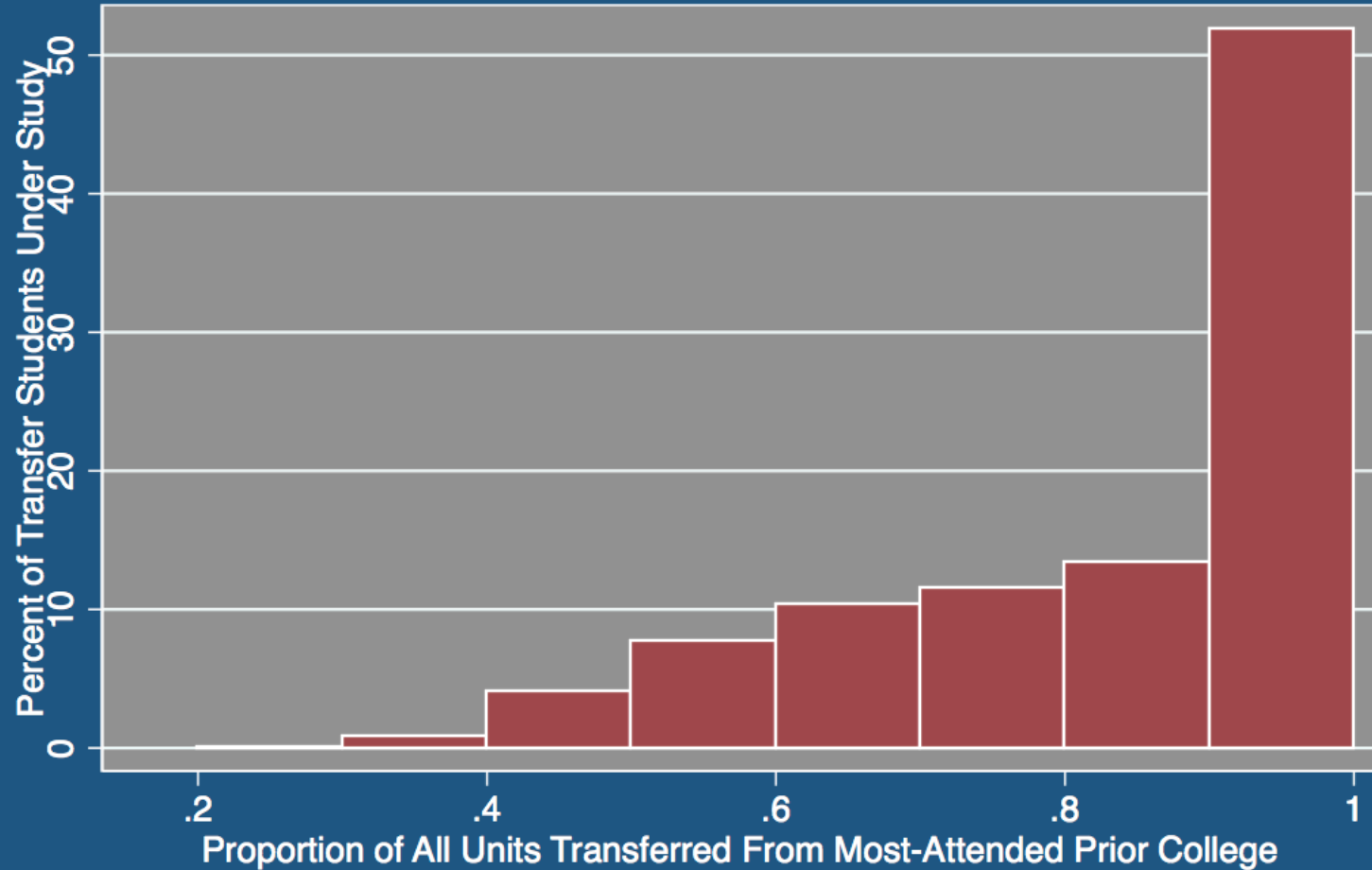
- OLS and logistic regressions to estimate how much hypothesized characteristics influence graduation
  - Graduate within 2, 3, and 4 years
  - Retention NOT among list (transient population?)
    - 1% graduated before 1 year retention anyway!
    - 2% skipped 1 of next 2 terms but graduated anyway!
  - Time to graduation
- Strength of relationships influences report schema

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Summary Statistics of Data (Top Transfer Schools)

Santa Monica College	15%
Marymount College	8%
El Camino College	7%
Pasadena City College	3%
Orange Coast College	3%
Moorpark College	2%
West Los Angeles	2%
Glendale Community College	1%
Los Angeles Valley College	1%
College of the Canyons	1%

43% came from ten schools—450 schools in total

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Summary Statistics of Data (Transfer School Characteristics)

Level and Funding	2-year Public	58%
	2-year Private	9%
	4-year Public	16%
	4-year Private	17%
Previous Schools	1	40%
	2	35%
	3	17%
	4+	8%
Units Transferred	Average	53
	IQR	43/62

Summary Statistics of Data (Student Characteristics)

Gender	Female	56%
Ethnicity	White	52%
	Hispanic	16%
	Unknown	11%
	Asian/PI	8%
	International/NRA	7%
	Black	5%
	Native	1%
Age	16-19	24%
	20	29%
	21-22	27%
	23+	20%

```
Logistic regression                      Number of obs   =       2218
                                   LR chi2(12)    =     822.04
                                   Prob > chi2    =     0.0000
Log likelihood = -934.07917              Pseudo R2      =     0.3056


---------------------------------------------------------------------------
   grad_2yr | Odds Ratio   Std. Err.     z    P>|z|    [95% Conf. Interval]
-------------+-------------------------------------------------------------
totalxferh~s |  1.430743   .0423245   12.11   0.000    1.350147   1.516149
totalxferh~2 |   .9979715   .0002074   -9.77   0.000     .9975651   .9983781
     xfergpa |   .872691   .1523305   -0.78   0.435     .6198421   1.228683
      priv2yr |  .8312516   .1643764   -0.93   0.350     .5641715   1.224768
      priv4yr |  .6495479   .1129104   -2.48   0.013     .4620059   .9132187
      publ4yr |  .9144759   .1694372   -0.48   0.629     .6360024   1.314879
        male |   .7421708   .0861446   -2.57   0.010     .5911586   .9317593
         age |   1.007371   .0151797    0.49   0.626     .9780546   1.037567
     minority |  .6519482   .0883006   -3.16   0.002     .4999486   .8501603
 prevschool~t |   .8523435   .0525385   -2.59   0.010     .7553471   .9617956
      fs_cratt |  1.40295   .0435546   10.91   0.000     1.32013   1.490966
       fs_pwiu |  .0282726   .0169864   -5.94   0.000     .0087087   .0917858
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Logistic regression                        Number of obs   =      2218
                                    LR chi2(12)    =    564.43
                                    Prob > chi2    =    0.0000
Log likelihood = -1139.5204                 Pseudo R2      =    0.1985


------------------------------------------------------------------------------
   grad_3yr | Odds Ratio   Std. Err.     z    P>|z|    [95% Conf. Interval]
------------+-----------------------------------------------------------------
totalxferh~s |  1.146188   .0140684   11.12   0.000    1.118943   1.174096
totalxferh~2 |  .9991903   .0001069   -7.57   0.000    .9989808   .9993998
     xfergpa |  1.392737   .2135231    2.16   0.031    1.031264   1.880911
      priv2yr |  .6859878   .1199531   -2.16   0.031    .4869381   .9664047
      priv4yr |  1.007403   .1489647    0.05   0.960    .7539383   1.346078
      publ4yr |  .9857734   .1496321   -0.09   0.925    .7321025    1.32734
        male |  .8098701   .0846203   -2.02   0.044    .6598976   .9939263
         age |  .9764045   .0126647   -1.84   0.066     .951895   1.001545
     minority |  .7795724   .0954096   -2.03   0.042    .6133104   .9909063
  prevschool~t |  .8702715   .0503035   -2.40   0.016    .7770583   .9746663
      fs_cratt |  1.235318   .0288636    9.04   0.000    1.180023   1.293205
       fs_pwiu |   .019793   .0086149   -9.01   0.000    .0084338   .0464514
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Logistic regression                          Number of obs   =      2218
                                  LR chi2(12)    =     358.42
                                  Prob > chi2    =     0.0000
Log likelihood = -1038.0836                  Pseudo R2      =     0.1472


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    grad_4yr | Odds Ratio   Std. Err.     z    P>|z|    [95% Conf. Interval]
-------------+---------------------------------------------------------------
totalxferh~s |   1.090847   .0118954    7.97   0.000     1.067779   1.114412
totalxferh~2 |   .9994746   .0001002   -5.24   0.000     .9992782   .9996711
      xfergpa |   1.436632   .2293885    2.27   0.023      1.05059   1.964526
       priv2yr |   .6812433   .1263196   -2.07   0.038     .4736615   .9797977
       priv4yr |   1.032167   .1626943    0.20   0.841     .7578444   1.405787
       publ4yr |   1.137407   .1857346    0.79   0.430     .8258815   1.566442
          male |   .8935317   .0992501   -1.01   0.311     .7187234   1.110857
           age |   .9596441   .0123997   -3.19   0.001     .9356463   .9842574
      minority |   .7270636    .093102   -2.49   0.013     .5656845    .934481
  prevschool~t |    1.04859    .066011    0.75   0.451     .9268746    1.18629
       fs_cratt |   1.165184    .026998    6.60   0.000     1.113453   1.219319
        fs_pwiu |   .0282557   .0107819   -9.35   0.000     .0133753   .0596912
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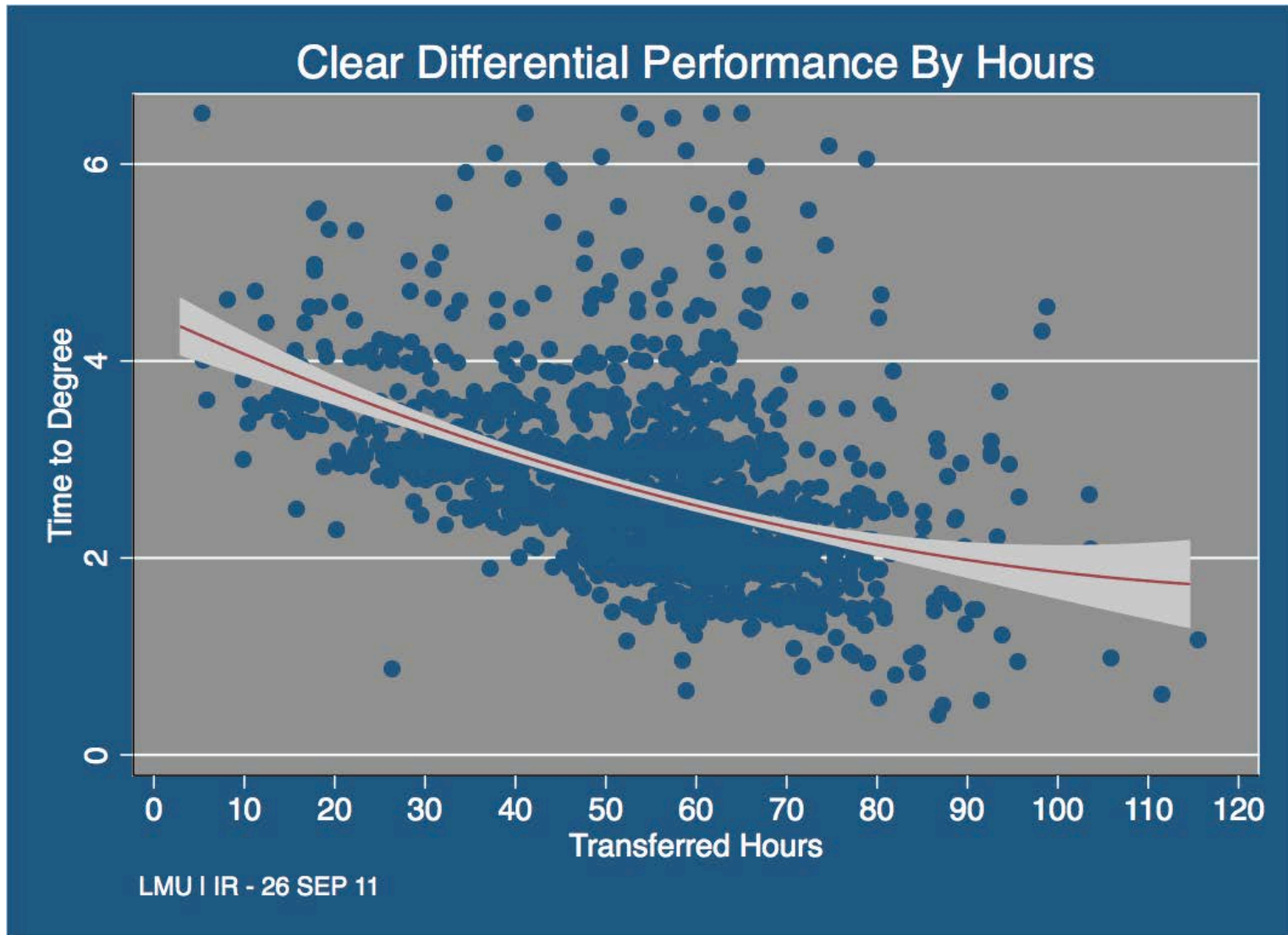
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      Source |     SS      df      MS              Number of obs =   1790
-------------+-----------------------------        F( 12,  1777) =   45.38
       Model |  419.470191    12  34.9558493       Prob > F      = 0.0000
    Residual |  1368.91584  1777  .77035219        R-squared     = 0.2346
-------------+-----------------------------        Adj R-squared = 0.2294
       Total |  1788.38603  1789  .99965681        Root MSE      = .8777
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-------------------------------------------------------------------------------
         ttd |    Coef.  Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+-----------------------------------------------------------------
 totalxferh~s |  -.0479807   .0050871   -9.43   0.000    -.057958   -.0380035
 totalxferh~2 |   .0001926   .0000446    4.32   0.000    .0001051    .0002801
      xfergpa |   .0150835   .0617251    0.24   0.807    -.105978    .1361449
      priv2yr |   .1081582   .0753613    1.44   0.151    -.0396478   .2559643
      priv4yr |   .0307052   .0595016    0.52   0.606    -.0859952   .1474055
      publ4yr |  -.0128636   .0616891   -0.21   0.835    -.1338544   .1081273
         male |   .1263047   .0423344    2.98   0.003    .0432743    .2093351
          age |  -.0045611   .0057383   -0.79   0.427    -.0158157   .0066935
     minority |   .1407078   .0504925    2.79   0.005    .0416769    .2397387
  prevschool~t |   .127709    .02308     5.53   0.000    .0824422    .1729758
     fs_cratt |  -.0974118   .0099339   -9.81   0.000    -.1168953  -.0779284
      fs_pwiu |   .8760878   .2129918    4.11   0.000    .458347    1.293829
        _cons |   5.76948    .3180085   18.14   0.000    5.14577     6.39319
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Clear Differential Performance By Hours

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- Illustrative to condition on some grouping of total transfer units
    - Romantic to have some mapping to class level
    - But it's uncommon to come in a freshman or a senior
- Should break down by ethnicity (and may as well by gender even though no real differences, because people will ask)
- Inconsistent relationship between control and school level imply no need to condition this way*

All Transfer Students												
Transfer Students				Percent of Cohort that Graduated within M years								
Cohort	N				2			3			4	
Year	0-39[*]	40-59[*]	60+[*]		0-39[*]	40-59[*]	60+[*]	0-39[*]	40-59[*]	60+[*]	0-39[*]	40-59[*]	60+[*]
1999-0	92	175	192		1.1	16.0	46.4	39.8	64.0	81.8	55.7	73.1	84.4
2000-1	81	147	174		0.0	14.3	54.0	33.8	61.9	76.4	60.8	75.5	83.9
2001-2	88	116	157		0.0	16.4	50.3	35.3	68.1	77.1	61.2	78.4	82.2
2002-3	112	177	211		4.0	23.7	47.9	41.6	66.7	71.1	63.4	72.9	78.7
2003-4	58	89	114		0.0	27.0	56.1	60.3	67.4	84.2	75.9	74.2	86.8
2004-5	29	43	72		0.0	18.6	43.1	28.6	55.8	76.4	57.1	74.4	83.3
2005-6	62	99	131		0.0	20.2	58.0	27.9	76.8	76.3			
2006-7	91	131	148		0.0	15.3	49.3						
2007-8	125	122	136										
Historical Average					0.9	18.6	50.6	38.8	66.2	77.3	62.2	74.6	82.8

Note (*): Transfer students were placed in one of three categories based on the number of transfer credits they had in their records by two years after their first semester. All statistics were computed separately for these three categories of students.

With further breakdowns by sex, ethnicity, college, and HEOA financial aid categories

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