

## Hope College Retention Study

### Regression Models for Cumulative GPA and Retention

#### Linear Regression for Cumulative GPA

Population is students with at least 2 Term retention.

<u>In order by absolute value of Beta coefficient</u>	<u>Beta coefficient</u>
High School GPA	0.38
Male	-0.18
HSGPA of 4.0	0.16
ACT or equivalent	0.11
<b>Pell Recipient and Nonwhite</b>	-0.11
Amount of Hope Grant	-0.09
<b>Female and HSGPA of 4.0</b>	-0.08
Religion - other Christian	0.07
Hispanic	-0.07
<b>No merit award and Pell recipient</b>	0.06
<b>First generation and Male</b>	-0.06
Home state - Illinois	-0.05
<b>No merit award and Non FAFSA filer</b>	0.05
Religion - RCA	0.04
Multi-racial	-0.04

#### Linear Regression for Cumulative GPA

Population is students with at least 2 Term retention.

<u>In order by absolute value of Beta coefficient</u>	<u>Beta coefficient</u>
High School GPA	0.35
Male	-0.17
White	0.15
HSGPA of 4.0	0.12
Amount of Hope Grant	-0.11
ACT or equivalent	0.1
Religion - other Christian	0.08
Asian	0.06
Home state - Illinois	-0.05
First generation	-0.05
Religion - RCA	0.04
African American	0.04

#### Logistic Regression for 6 Term Retention

Population is 2014 cohort

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.263
<b>Merit recipient and First Contact Senior Year</b>	-1.143
<b>Female and HSGPA of 4.0</b>	1.042
Pell Recipient	-0.505
<b>First Generation and First contact pre-Junior</b>	-1.42
Religion - None	-1.247
<b>No merit award and Non FAFSA filer</b>	1.57
<b>Merit recipient and Female</b>	0.644
ACT 24-26	-0.475
<b>First Contact Summer and Nonwhite</b>	-1.68
African American	1.041

#### Logistic Regression for 6 Term Retention

Population is 2014 cohort

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.347
First contact - Senior year	-0.78
Pell Recipient	-0.818
Female	0.541
Religion - None	-1.003
HSGPA 3.50-3.74	-0.529
Medium need	-0.483
African American	0.954

#### Linear Regression for 5 Term Retention

Population is 2014 cohort

<u>In order by introduction into model</u>	<u>B</u>
<b>Merit recipient and First Contact Senior Year</b>	1.139
<b>Male and Pell recipient</b>	-0.617
Religion - None	-1.179
<b>Female and HSGPA of 4.0</b>	1.558
<b>No merit award and Non FAFSA filer</b>	1.934
HS GPA 3.75 - 3.99	0.746
Merit recipient	1.139
ACT 24-26	-0.723
<b>First Contact Summer and Nonwhite</b>	-1.431

#### Linear Regression for 5 Term Retention

Population is 2014 cohort

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.478
First contact - Senior year	-0.729
HSGPA 3.50-3.74	-0.612
Pell Recipient	-0.686
Female	0.556
Religion - None	-0.877
First contact - Summer	-0.555
ACT 24-26	-0.423
Medium need	-0.444

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### Regression Models for Cumulative GPA and Retention

#### Linear Regression for 5 Term Retention Population is 2014 cohort

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.378
<b>Merit recipient and First Contact Senior year</b>	-0.896
Religion - None	-0.929
<b>First Contact Summer and HSGPA 3.50-3.74</b>	-1.109
<b>First Generation and First Contact Pre Junior</b>	-0.71
ACT 24-26	-0.353
Pell Recipient	-0.497
African American	1.146
Religion - RCA	0.665
Medium Financial Need	-0.381

#### Linear Regression for 5 Term Retention Population is 2014 cohort

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.467
First contact - Senior year	-0.604
Female	0.51
Religion - None	-0.792
HSGPA 3.50-3.74	-0.414
Pell recipient	-0.543
Medium need	-0.488
African American	1.212
Religion - RCA	0.639

#### Logistic Regression for 3 Term Retention Population is 2014 and 2015 cohorts

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.449
<b>Merit recipient and First Contact Senior year</b>	-0.854
Religion - None	-0.784
HS GPA 3.50-3.74	-0.407
Preferred Legacy	0.574
<b>First Generation and First Contact Pre Junior</b>	-0.951
<b>Merit recipient and Female</b>	0.579

#### Logistic Regression for 3 Term Retention Population is 2014 and 2015 cohorts

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.483
First contact - Senior year	-0.621
HSGPA 3.50-3.74	-0.461
Female	0.386
Religion - None	-0.65
Preferred Legacy	0.443
African American	1.214
High need	-0.387

#### Logistic Regression for 2 Term Retention Population is 2014-2016 cohorts

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.299
First Contact - Senior year	-0.685
<b>Male and Pell recipient</b>	-0.632
Preferred Legacy	0.618
<b>First Generation and First Contact Pre Junior</b>	-0.902
HS GPA 3.50-3.74	-0.362

#### Logistic Regression for 2 Term Retention Population is 2014-2016 cohorts

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	1.274
First contact - Senior year	-0.625
Preferred Legacy	0.56
Pell recipient	-0.3887
HSGPA 3.50-3.74	-0.364
Female	0.295

#### Logistic Regression for 1 Term Retention Population is 2014-2016 cohorts

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	0.909
First Contact - Senior year	-0.644
Preferred Legacy	1.05
<b>Female and HS GPA 4.0</b>	0.875
Home State - Michigan	-0.506

#### Logistic Regression for 1 Term Retention Population is 2014-2016 cohorts

<u>In order by introduction into model</u>	<u>B</u>
High School GPA	0.871
First contact - Senior year	-0.645
Preferred Legacy	1.055
Home State - Michigan	-0.519
ACT or equivalent	0.067