

3. Student Success Rate in College-Level Math or Science Courses

Purpose

To ensure students are successfully completing credit-bearing Math or Science courses within their first three academic years.

Description

Index score based on the percentage of first-time fall non-dually enrolled associate degree seeking students passing a credit-bearing Math or Science course with a “C” or better within three years.

Calculation

Success Rate

Denominator: First-time fall non-dually enrolled associate degree students (i.e., students with a curriculum code that begins with an A) their first fall.

Numerator: Of those in the denominator, the number earning a standard letter grade of A, B, C, or P in at least one credit-bearing (course number >=100) Math (MAT) or Science (AST, BIO, CHM, GEL, PHY) course within three years (by the end of the third summer term).

Note: See appendix for new first-time fall cohort definition

Index Score

Pell and Underserved Race/Ethnicity (URE) Index Score: College success rate among cohort students receiving Pell whose race/ethnicity is identified as historically underserved divided by the statewide success rate for the same subpopulation of students.

Pell and Non-Underserved Race/Ethnicity (Non-URE) Index Score: College success rate among cohort students receiving Pell whose race/ethnicity is not identified as historically underserved divided by the statewide success rate for the same subpopulation of students.

Non-Pell and Underserved Race/Ethnicity (URE) Index Score: College success rate among cohort students not receiving Pell whose race/ethnicity is identified as historically underserved divided by the statewide success rate for the same subpopulation of students.

Non-Pell and Non-Underserved Race/Ethnicity (Non-URE) Index Score: College success rate among cohort students not receiving Pell whose race/ethnicity is not identified as historically underserved divided by the statewide success rate for the same subpopulation of students.

Pell and URE Denominator: Number of cohort students receiving Pell whose race/ethnicity is identified as historically underserved.

Pell and Non-URE Denominator: Number of cohort students receiving Pell whose race/ethnicity is not identified as historically underserved.

Non-Pell and URE Index Denominator: Number of cohort students not receiving Pell whose race/ethnicity is identified as historically underserved.

Non-Pell and Non-URE Index Denominator: Number of cohort students not receiving Pell whose race/ethnicity is not identified as historically underserved.

Total Numerator: [(Pell and URE Index Score) × (Pell and URE Denominator)] + [(Pell and Non-URE Index Score × Pell and Non-URE Denominator)] + [(Non-Pell and URE Index Score × Non-Pell and Non-URE Denominator)] + [(Non-Pell and Non-URE Index Score × Non-Pell and Non-URE Denominator)]

Total Denominator: (Pell and URE Denominator) + (Pell and Non-URE Denominator) + (Non-Pell and URE Denominator) + (Non-Pell and Non-URE Denominator)

Total Index Score: (Total Numerator) divided by (Total Denominator)

Data Sources

Comprehensive Curriculum Student Report, National Student Clearinghouse

Additional Details

Pell category based on Pell status during a student’s first fall semester.

Underserved minority race/ethnicities include American Indian, Black, Hawaiian/Pacific Islander, Hispanic, and Multiple Races.

TABLE 3. STUDENT SUCCESS RATE IN COLLEGE-LEVEL MATH OR SCIENCE COURSES, FALL 2022 COHORT

Index score based on the percentage of not dual enrolled first-time fall associate degree seeking students passing a credit-bearing Math or Science course with a “C” or better within three years.

Excellence: 1.144

Avg Band Max: 1.059

Avg Band Min: 0.888

Baseline: 0.631

	FALL COHORT					SUCCESS RATE					GROUP INDEX SCORE				TOTAL INDEX SCORE		
	Pell/ URE	Pell/ Non-URE	Non-Pell/ URE	Non-Pell/ Non-URE	Total	Pell/ URE	Pell/ Non-URE	Non-Pell/ URE	Non-Pell/ Non-URE	Total	Pell/ URE	Pell/ Non-URE	Non-Pell/ URE	Non-Pell/ Non-URE	2022	2021	2020
System Totals	6,829	4,458	3,669	6,348	21,304	41%	52%	44%	58%	49%							
Alamance CC	149	87	61	127	424	38%	62%	28%	53%	46%	0.929	1.186	0.640	0.908	0.934	0.944	0.968
Asheville-Buncombe TC	71	133	42	112	358	38%	47%	33%	49%	44%	0.924	0.905	0.765	0.845	0.874	0.926	0.877
Beaufort County CC	30	41	2	23	96	37%	46%	*	43%	44%	0.890	0.886	*	0.748	0.883	0.618	0.903
Bladen CC	19	16	3	11	49	53%	56%	*	64%	57%	1.278	1.075	*	1.095	1.186	0.795	1.202
Blue Ridge CC	50	60	27	89	226	60%	52%	37%	52%	52%	1.457	0.987	0.850	0.889	1.036	1.098	1.234
Brunswick CC	40	64	14	61	179	43%	50%	29%	54%	48%	1.032	0.955	0.656	0.931	0.941	0.924	1.178
Caldwell CC & TI	40	96	20	104	260	55%	55%	55%	63%	58%	1.336	1.055	1.263	1.092	1.129	1.254	1.121
Cape Fear CC	177	227	93	431	928	42%	51%	43%	61%	53%	1.029	0.968	0.988	1.046	1.018	1.070	1.080
Carteret CC	18	48	6	41	113	50%	38%	*	49%	43%	1.214	0.717	*	0.839	0.843	0.978	1.098
Catawba Valley CC	72	91	25	146	334	47%	59%	64%	60%	57%	1.147	1.134	1.469	1.037	1.119	1.073	1.125
Central Carolina CC	116	85	69	86	356	35%	47%	43%	59%	46%	0.858	0.899	0.998	1.020	0.934	0.876	0.834
Central Piedmont CC	1,001	307	739	769	2,816	51%	65%	49%	64%	56%	1.230	1.251	1.131	1.098	1.170	1.228	1.200
Cleveland CC	44	59	16	34	153	45%	44%	19%	65%	46%	1.104	0.842	0.430	1.113	0.935	1.103	1.145
Coastal Carolina CC	83	83	121	187	474	60%	66%	37%	57%	54%	1.463	1.266	0.854	0.984	1.084	1.242	1.187
Coll of the Albemarle	36	51	28	66	181	36%	45%	61%	59%	51%	0.877	0.862	1.394	1.017	1.004	0.886	0.922
Craven CC	56	60	35	72	223	39%	57%	51%	60%	52%	0.954	1.083	1.181	1.027	1.048	0.826	0.987
Davidson-Davie CC	73	115	28	107	323	55%	57%	54%	63%	58%	1.331	1.080	1.230	1.077	1.149	1.271	1.207
Durham TCC	243	58	147	107	555	42%	59%	39%	67%	48%	1.009	1.120	0.906	1.158	1.022	1.100	0.905
Edgecombe CC	52	9	6	2	69	31%	*	*	*	35%	0.747	*	*	*	0.793	0.548	0.666
Fayetteville TCC	519	241	259	201	1,220	29%	44%	32%	45%	35%	0.711	0.848	0.727	0.770	0.751	0.841	0.842
Forsyth TCC	469	214	251	272	1,206	51%	56%	45%	65%	54%	1.227	1.072	1.043	1.119	1.137	1.118	1.103
Gaston College	109	138	39	166	452	48%	61%	41%	64%	57%	1.159	1.163	0.942	1.109	1.123	1.109	1.090
Guilford TCC	492	243	200	273	1,208	42%	55%	47%	58%	49%	1.017	1.054	1.079	1.002	1.031	0.983	0.889
Halifax CC	26	13	4	9	52	35%	62%	*	*	46%	0.841	1.176	*	*	0.979	0.809	0.923
Haywood CC	9	56	6	32	103	*	43%	*	38%	43%	*	0.819	*	0.645	0.832	0.954	0.855
Isothermal CC	25	62	16	26	129	40%	45%	44%	42%	43%	0.971	0.863	1.004	0.728	0.874	0.808	0.975
James Sprunt CC	31	12	9	15	67	39%	42%	*	47%	40%	0.940	0.796	*	0.803	0.860	0.716	0.822
Johnston CC	84	78	57	138	357	43%	54%	47%	63%	54%	1.041	1.029	1.088	1.085	1.063	1.158	1.151
Lenoir CC	66	36	14	40	156	35%	47%	43%	73%	48%	0.846	0.902	0.984	1.247	0.974	0.804	0.806
Martin CC	13	16	1	9	39	38%	25%	*	*	28%	0.934	0.478	*	*	0.610	0.844	0.463
Mayland CC		14	2	11	27	*	43%	*	27%	37%	*	0.819	*	0.469	0.701	0.586	0.632
McDowell TCC	2	24	3	13	42	*	50%	*	69%	52%	*	0.955	*	1.191	0.969	0.992	0.954
Mitchell CC	68	59	42	111	280	37%	51%	45%	57%	49%	0.893	0.972	1.039	0.976	0.964	0.941	0.940
Montgomery CC	11	11	4	12	38	55%	73%	*	67%	61%	1.325	1.390	*	1.147	1.208	0.824	0.472
Nash CC	76	40	18	29	163	43%	48%	50%	66%	49%	1.054	0.908	1.148	1.127	1.042	1.166	1.153
Pamlico CC	4	6	4	8	22	*	*	*	*	50%	*	*	*	*	1.053	0.795	0.915
Piedmont CC	15	21	5	15	56	20%	43%	*	60%	43%	0.486	0.819	*	1.032	0.837	0.736	0.881
Pitt CC	354	119	70	111	654	25%	41%	49%	56%	35%	0.597	0.787	1.115	0.961	0.749	0.769	0.835
Randolph CC	56	90	16	71	233	63%	56%	44%	45%	53%	1.518	1.062	1.004	0.775	1.080	0.859	0.873
Richmond CC	50	23	8	17	98	26%	43%	*	47%	36%	0.631	0.831	*	0.810	0.751	0.635	0.622
Roanoke-Chowan CC	12	2	9	1	24	42%	*	*	*	33%	1.012	*	*	*	0.777	0.587	0.838
Robeson CC	151	30	24	8	213	42%	47%	42%	*	42%	1.013	0.892	0.957	*	0.976	0.904	0.973
Rockingham CC	38	54	11	41	144	42%	44%	45%	39%	42%	1.023	0.849	1.044	0.671	0.859	0.592	0.603
Rowan-Cabarrus CC	204	146	110	159	619	30%	45%	39%	48%	40%	0.726	0.851	0.898	0.833	0.813	0.656	0.772
Sampson CC	47	19	11	12	89	32%	16%	36%	25%	28%	0.775	0.302	0.835	0.430	0.635	0.824	0.939
Sandhills CC	95	51	37	64	247	34%	55%	35%	61%	45%	0.818	1.049	0.807	1.048	0.924	0.918	0.969
South Piedmont CC	75	46	66	118	305	49%	41%	59%	61%	55%	1.198	0.789	1.357	1.050	1.113	0.966	0.963
Southeastern CC	47	36	1	22	106	28%	47%	*	73%	44%	0.672	0.902	*	1.251	0.886	0.956	0.941
Southwestern CC	16	38	13	30	97	56%	34%	46%	60%	47%	1.366	0.654	1.060	1.032	0.943	0.727	0.829
Stanly CC	13	39	9	29	90	15%	54%	*	45%	46%	0.374	1.029	*	0.771	0.876	0.914	0.945
Surry CC	2	12	5	15	34	*	75%	*	93%	85%	*	1.433	*	1.606	1.627	0.917	0.918
Tri-County CC	4	27	2	11	44	*	70%	*	73%	68%	*	1.345	*	1.251	1.304	1.159	1.307
Vance-Granville CC	65	36	10	41	152	46%	64%	30%	66%	55%	1.121	1.221	0.689	1.133	1.119	1.119	1.179
Wake TCC	971	513	790	1,479	3,753	38%	54%	42%	57%	48%	0.920	1.028	0.962	0.974	0.965	0.967	0.976
Wayne CC	134	69	45	70	318	44%	62%	36%	60%	50%	1.069	1.191	0.816	1.032	1.052	1.022	0.947
Western Piedmont CC	23	58	9	42	132	52%	57%	*	55%	58%	1.267	1.087	*	0.942	1.155	1.070	0.978
Wilkes CC	41	58	1	35	135	41%	28%	*	69%	42%	1.007	0.527	*	1.180	0.838	0.979	0.904
Wilson CC	41	18	10	20	89	32%	56%	30%	65%	44%	0.770	1.062	0.689	1.118	0.898	0.839	0.978

* Subcategory results suppressed when at least one of the subcategories contains less than 10 in the denominator

Note: System totals are up duplicated and may not be equal to the summation across colleges and categories

Appendix

First-Time Fall Cohort Definition

The first-time fall cohort includes fall credential seeking and dual enrollment* (Career and College Promise) students enrolled in curriculum courses at a college for the first-time in the fall or preceding summer.

Fall first-time students are identified as follows:

The student has a primary CURRICULUM CODE that begins with an A, C, D, or P during their first fall term. Students with curriculum codes that begin with T (Basic Skills Plus (T90950), Special Credit (T90990), and NC Rural Innovative Schools (T90900)) are excluded.

The student is enrolled in at least one curriculum course during their first fall term excluding courses where the COLLEGE LETTER GRADE equals AU, CE, NA, or NS and/or the STANDARD LETTER GRADE equals AU or CE.

The fall semester, or preceding summer, is the student's first curriculum enrollment term in any post-secondary institution. First curriculum enrollment term is determined as follows:

All enrolled students who meet the course enrollment and curriculum requirements stated above are sent to the National Student Clearinghouse for a Prior Attendance (PA) search for enrollment and graduation records (excluding DEGREE TITLES related to HIGH SCHOOL DIPLOMA, ADULT HIGH SCHOOL DIPLOMA, GED, or GED CERTIFICATE) prior to August 15th of the fall term. These records are evaluated for enrollment prior to and during the preceding summer. Students with no enrollment or graduation record prior to the fall semester and those who only have an enrollment record in the preceding summer are flagged as potential first-time students.

All potential first-time students are then matched to the NCCCS Data Warehouse to search for course enrollment prior to the fall term in one or more courses where the College Letter Grade does not equal AU, CE, NA, or NS and the Standard Letter Grade does not equal AU and CE. Students with no course enrollment prior to the fall semester and those who enrolled for the first time during the preceding summer are included in the fall cohort. NCCCS Data Warehouse matching is based on an exact match of one or more of the following standardized and concatenated variables as reported during the student's first fall term:

- NAME_DOB: Last Name, First Name, Date of Birth
- NAME_SID: Last Name, First Name, Student ID
- SID_DOB: Student ID, Date of Birth

An additional check is conducted to ensure multiple calculated IDs are resolved to one Colleague ID within institution.

The following measures are impacted based on the First-Time Fall Cohort:

Student Success Rate in College-Level English Courses (*Dual enrollment students excluded)
Student Success Rate in College-Level Math Courses (*Dual enrollment students excluded)
First Year Progression
Curriculum Completion

Data Sources

Comprehensive Curriculum Student Report, National Student Clearinghouse