2. Indicators of teaching effectiveness (Component 4.2)

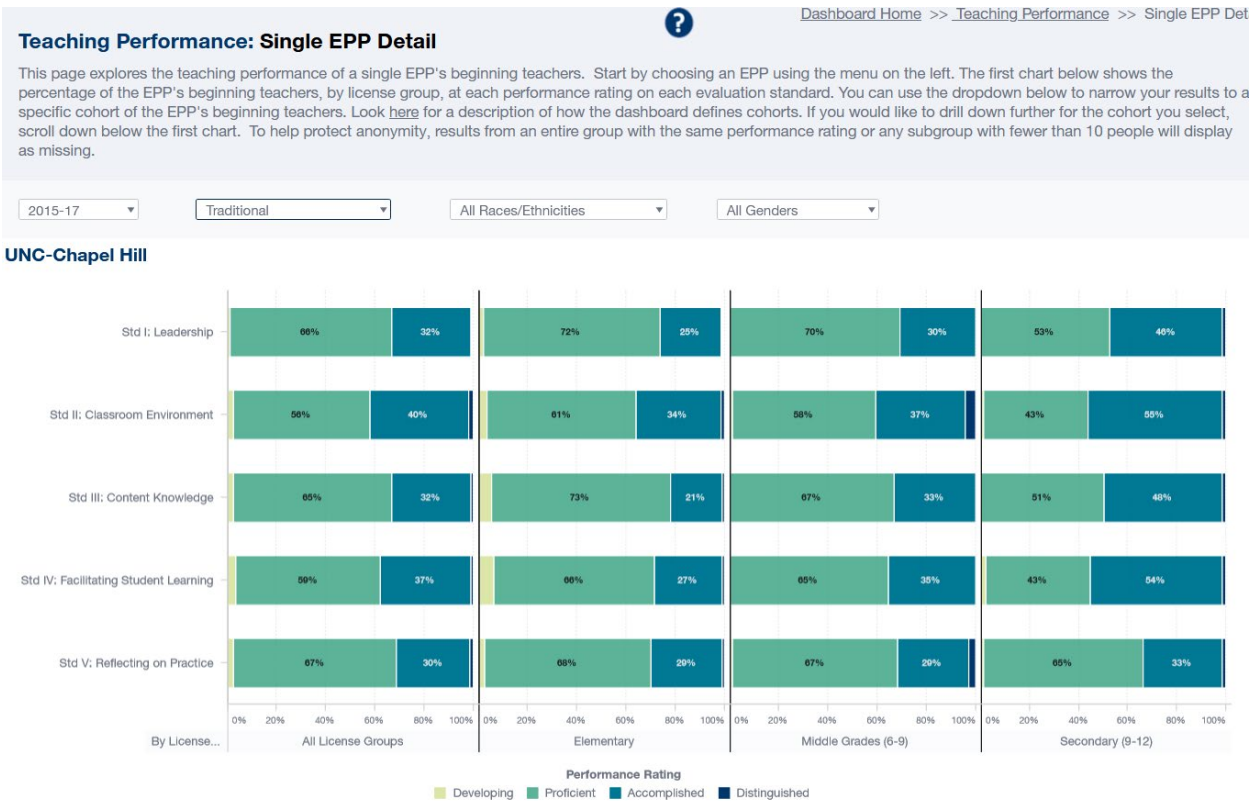
1. Teaching Performance and effectiveness

Data for North Carolina Educator Evaluation System (NCEES) is captured annually and provides evidence of teaching effectiveness against NC professional Teaching Standards at the state and EPP level.

Table 1. Percent of UNCCH beginning teachers received ratings above DEVELOPING (Proficient, Accomplished, Distinguished).

Data sources: [NCDPI EPP Performance Dashboard](#) and UNC System Office.

	2015-17	2016-18	2019
Standard I: Leadership	98.5%	99.0%	99.6%
Standard II: Classroom Environment	97.6%	99.0%	99.3%
Standard III: Content Knowledge	97.2%	97.6%	98.5%
Standard IV: Facilitating Student Learning	96.3%	96.6%	98.7%
Standard V: Reflecting on Practice	97.6%	98.1%	98.5%



2. Study on the Effectiveness of Teachers Initially Prepared at UNC System Institutions

The Education Policy Initiative at Carolina has worked with the UNC System to estimate the effectiveness of teachers initially prepared at UNC System institutions since 2008. The key question is:

How effective are the initially-prepared teachers from each UNC System institution?

Sample

The sample includes teachers with less than five years of experience in the 2012-13 through 2016-17 school years teaching a tested grade or subject area. The analyses focus on those initially-prepared to teach by UNC System institutions (undergraduate, MAT, licensure/certificate) and compare their outcomes to those of teachers prepared elsewhere.

Findings for UNC Chapel Hill

Table 1 shows the value-added results for teachers prepared by UNC Chapel Hill. Table 2 displays the estimate of added months of students learning based on results in Table 1[1].

Overall, teachers in *Elementary Math, Middle School Math, Middle School Science*, and *High School Biology* have significantly positive effects on student outcomes ($p<0.05$), with the additive of the equivalence of 1.26 (ES Math), 1.728 (MS Math), 2.412 (MS Science), and 2.196 (HS Biology) months of learning, respectively.

Particularly for economically-disadvantaged students, UNC Chapel Hill prepared teachers added 3.312 months of student learning in *Middle School Science* and 2.448 months of learning in *High School Biology*. Minority students also benefit from UNC Chapel Hill prepared teachers, especially in *Middle School Math* and *High School Biology*, with added 1.26 and 2.34 months of learning respectively. For low-performing students, UNC Chapel Hill prepared Middle School Science teachers added more than 4 months of student learning.

[1] The conversion is based on the findings of the Measures of Effective Teaching project (funded by the Bill and Melinda Gates Foundation), which calculated months of schooling using a 0.25 standard deviation per year conversion factor (assuming a 9-month school year).

Table 1. UNC-CH Value-Added Results

	ES Math	ES Read	ES Science	MS Math	MS Read	MS Science	MS Algebra	HS Algebra	HS Biology	HS English
Number of Teachers	111	117	58	62	66	19	19	30	40	42
Overall	**0.035***	0.006	0.008	**0.048****	0	**0.067***	-0.01	0.026	**0.061***	0.005
Economically-Disadvantaged	0.022	0.005	-0.009	0.03	0.002	**0.092***	N/A	0.012	**0.068***	0.005
Minority	0.019	-0.001	-0.014	**0.035***	0	0.052	N/A	0.01	**0.065***	-0.008
Low-Performing	0.023	0.001	-0.005	0.014	0.005	**0.112***	N/A	0.021	0.05	0.003
School Fixed Effects	**0.049***	-0.001	**0.066***	**0.042***	0.001	0.057	0.066	-0.007	0.038	0.006

** and ** indicate statistical significance at the 0.05 and 0.01 levels, respectively.*

Table 2. UNC-CH Added Months of Student Learning (Months)

	ES Math	ES Read	ES Science	MS Math	MS Read	MS Science	MS Algebra	HS Algebra	HS Biology	HS English
Number of Teachers	111	117	58	62	66	19	19	30	40	42
Overall	**1.26**	0.216	0.288	**1.728**	0	**2.412**	-0.36	0.936	**2.196**	0.18
Economically-Disadvantaged	0.792	0.18	-0.324	1.08	0.072	**3.312**	N/A	0.432	**2.448**	0.18
Minority	0.684	-0.036	-0.504	**1.26**	0	1.872	N/A	0.36	**2.34**	-0.288
Low-Performing	0.828	0.036	-0.18	0.504	0.18	**4.032**	N/A	0.756	1.8	0.108
School Fixed Effects	**1.764**	-0.036	**2.376**	**1.512**	0.036	2.052	2.376	-0.252	1.368	0.216

Yellow highlight indicates the results in the value-added model (Table 3) have statistical significance at the 0.05 level.

Summary

The results show that UNC Chapel Hill prepared effective teachers, especially in secondary STEM subject areas. These findings are also evident for economically disadvantaged and minority students, demonstrating the educator preparation program's strong commitment to social justice in serving the marginalized and underserved student population.