



A Picture is Worth a Thousand Words

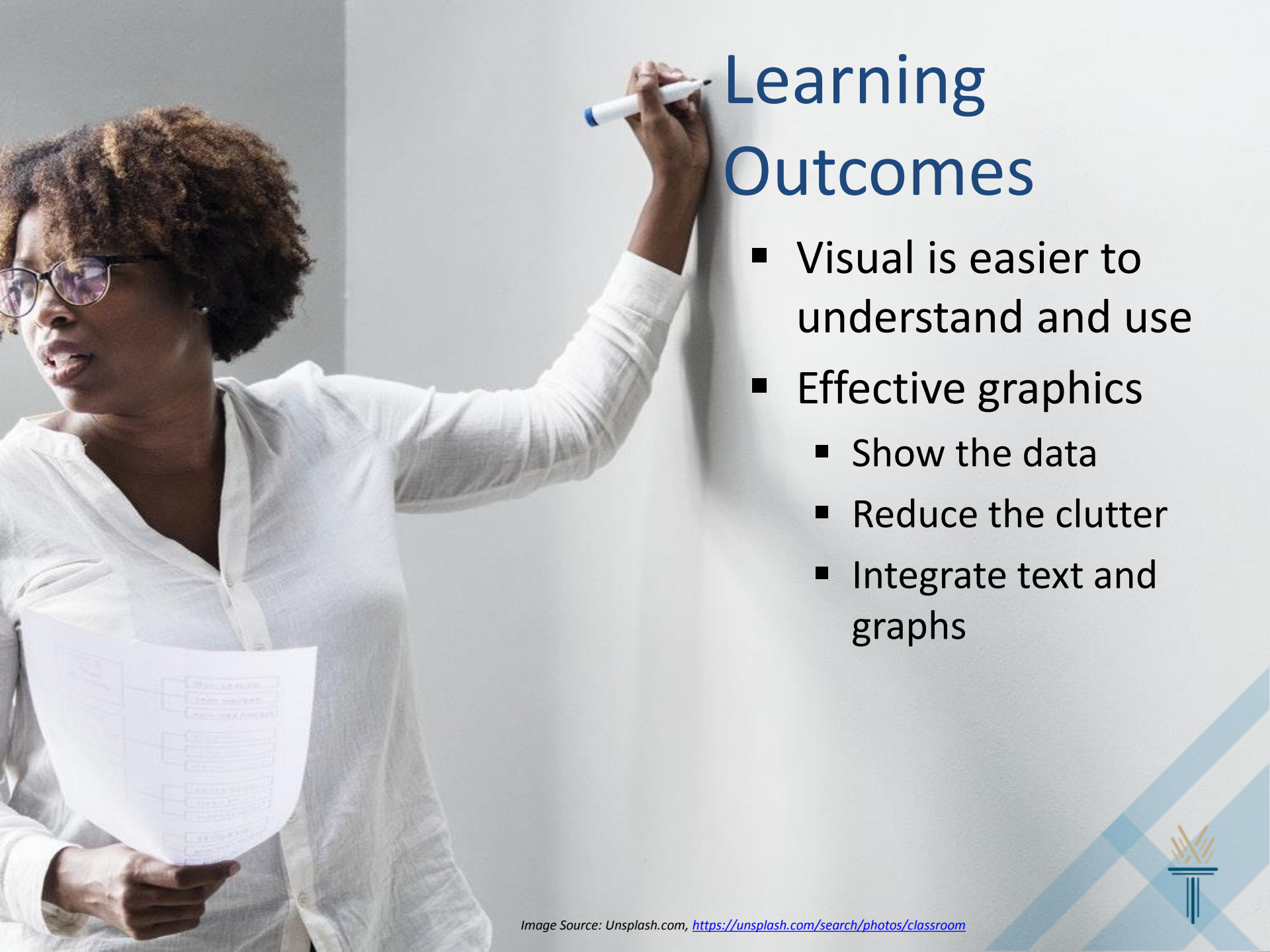
2018 Fall Staff Professional Development Conference

“Lead the Way by Embracing Change: Removing Barriers to Professional Growth”

Camellia Inman
Strategic Planning and Assessment
Enrollment and Student Services

October 2018





Learning Outcomes

- Visual is easier to understand and use
- Effective graphics
 - Show the data
 - Reduce the clutter
 - Integrate text and graphs





Image Source: Unsplash.com, McWay Falls, US
by Shadman SakibZ @xergone

Exhibit A

Wake Tech Curriculum Enrollment and Wake County Unemployment 2009 - 2017

Year/Academic Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Wake Tech Unduplicated Headcount (Number of Students)	22,860	24,935	26,273	27,893	28,594	29,025	29,050	29,750	29,936
Wake County Unemployment Rate	8.9%	8.9%	8.5%	6.4%	6.5%	4.9%	4.3%	4.2%	4.2%

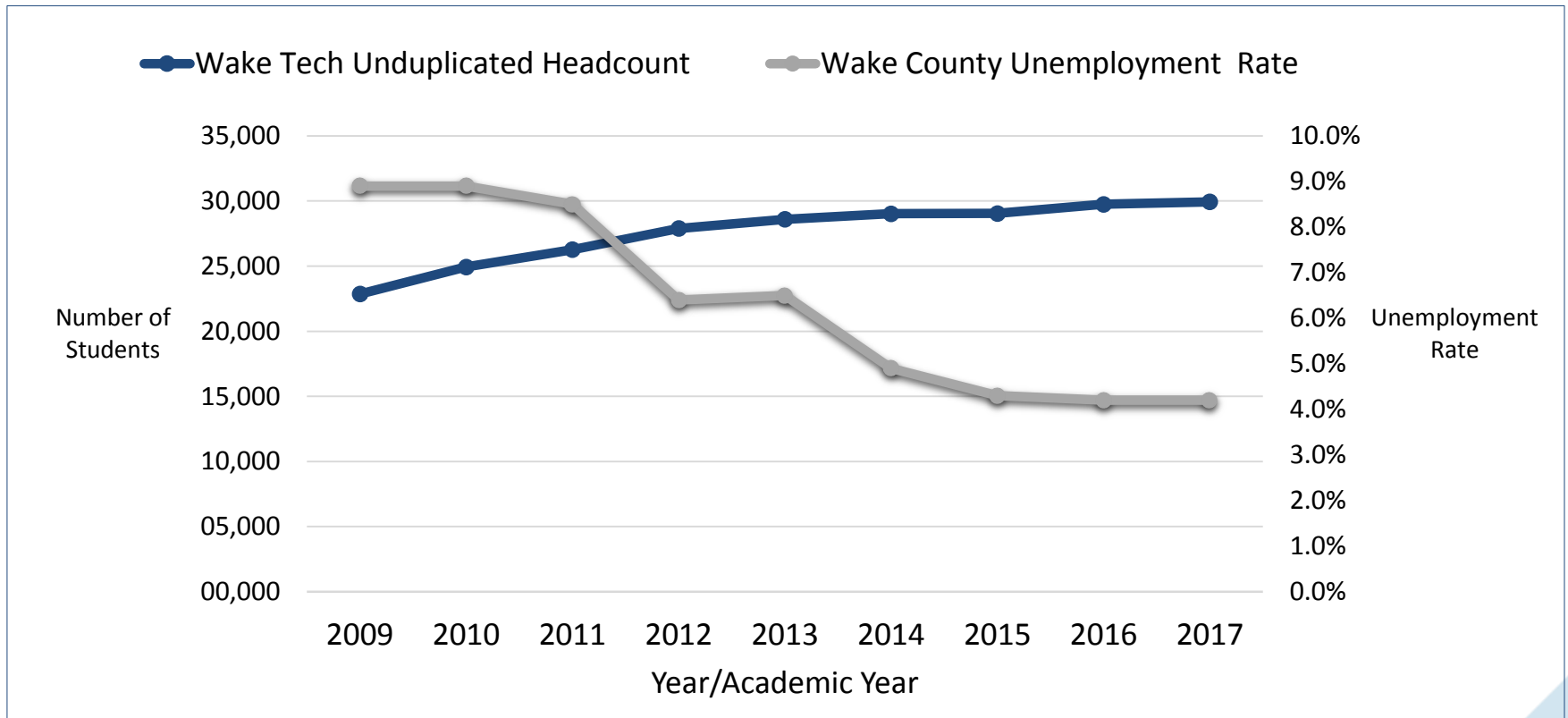
Data Sources:

Wake County Unemployment Rate by North Carolina Department of Commerce (<https://d4.nccommerce.com/LausSelection.aspx>), Wake Tech Institutional Effectiveness, Accreditation, and Research
Wake Tech Headcount by NCCCS Data Warehouse (CURSTA1 Annual Undup Count by College), Wake Tech Fact Book August 2017, Wake Tech Institutional Effectiveness, Accreditation, and Research



Exhibit B

Wake Tech Curriculum Enrollment and Wake County Unemployment 2009 - 2017



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Pictures for Eyes and Mind

Spring and Summer 2018 Wake Tech Graduates Accepted at Universities and Colleges

University/College	Number of Students
Appalachian State University	36
East Carolina University	64
Meredith College	14
North Carolina Central University	11
North Carolina State University	107
University of North Carolina at Chapel Hill	47
University of North Carolina at Charlotte	38
University of North Carolina at Greensboro	26
University of North Carolina at Wilmington	19
Wake Tech Community College	39
William Peace University	8
Other	73

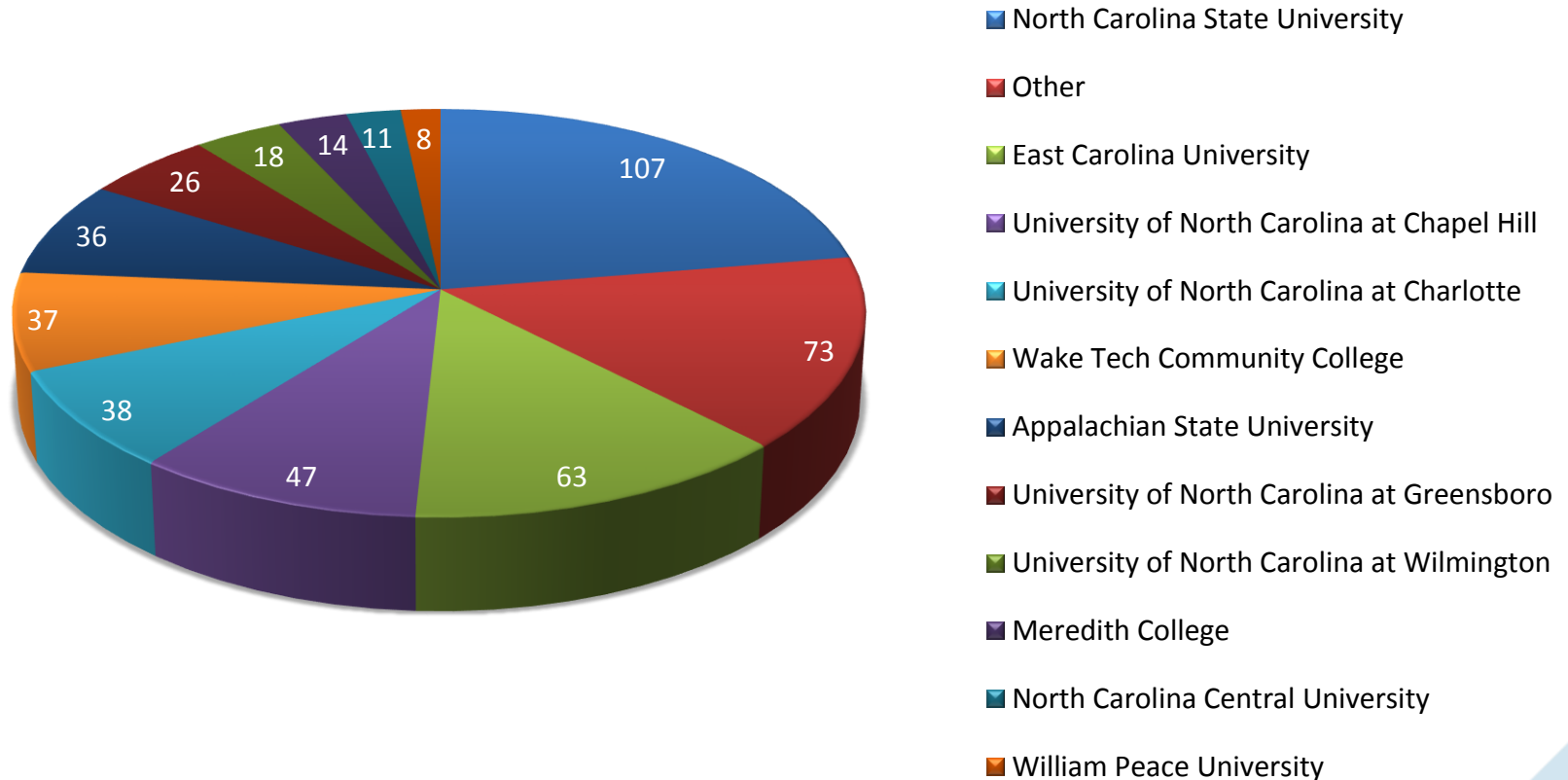
Data Source: First Destination Outcomes Survey, Spring Summer 2018, Career and Development Resources Division

<https://go.waketech.edu/employee/initiatives/IEandResearch/FDO%20Documents/First%20Destination%20Outcomes%20Survey%20Results%20Spring%20Summer%202018.pdf>



Pictures for Eyes and Mind

Spring and Summer 2018 Wake Tech Graduates Accepted at Universities and Colleges



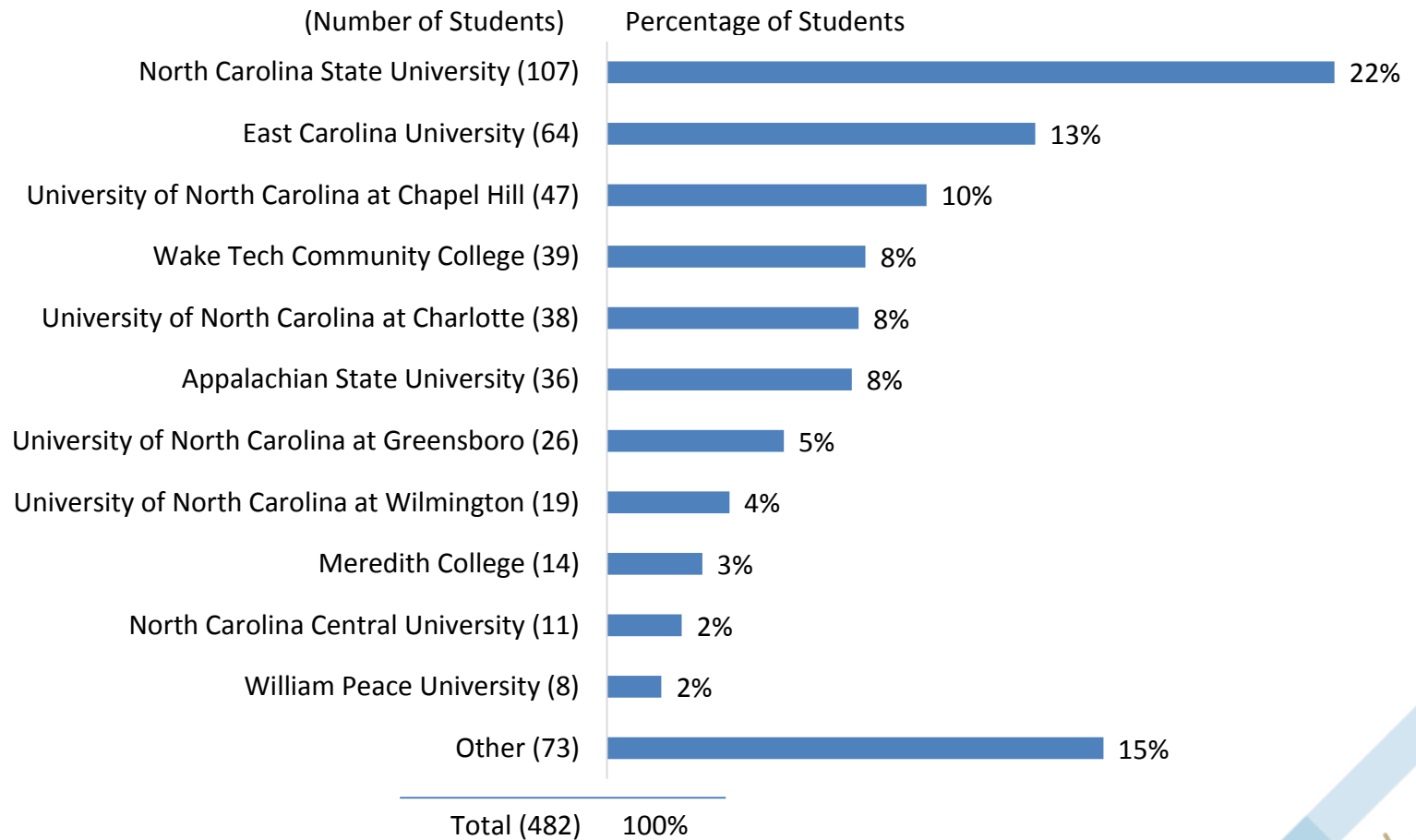
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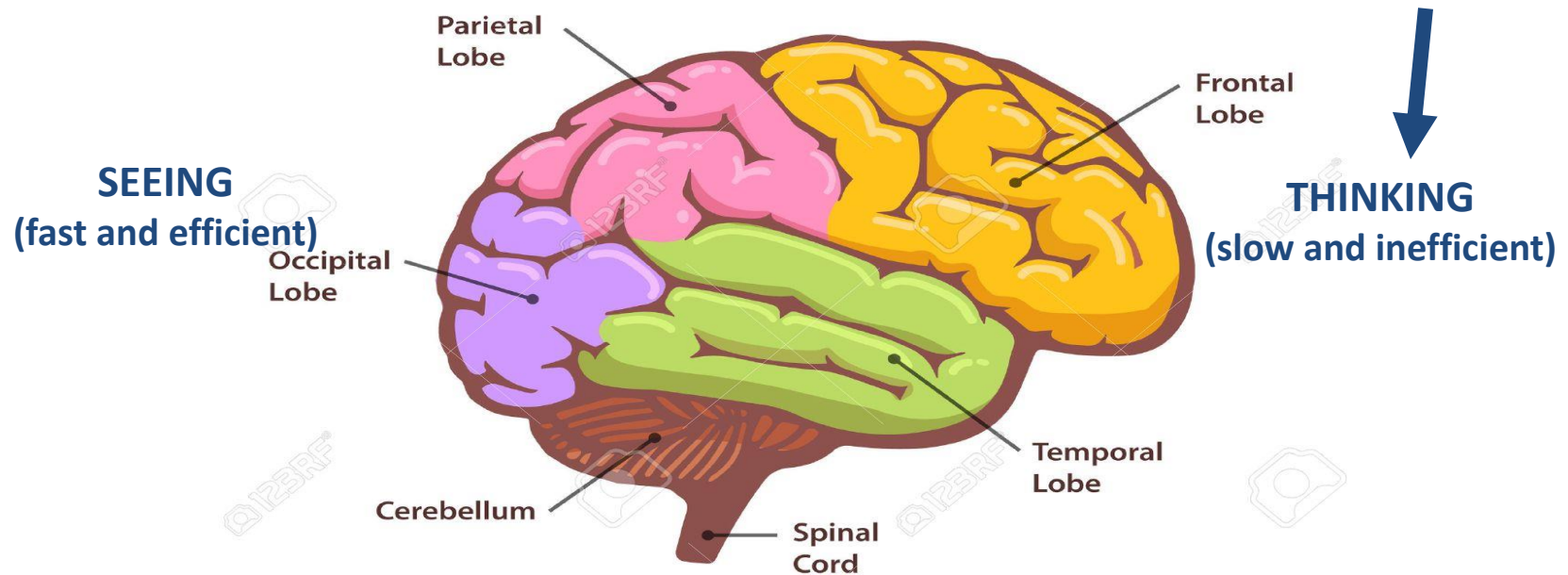


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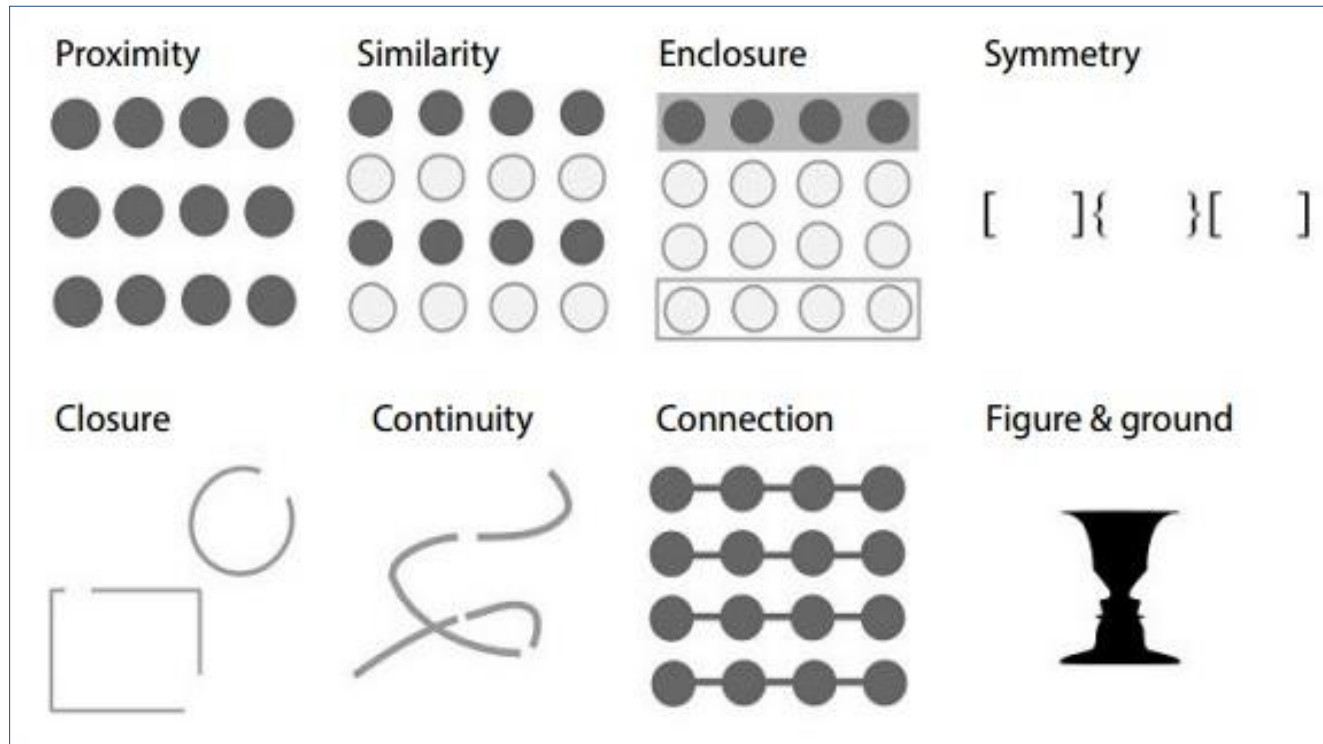
Data Visualization and Human Perception



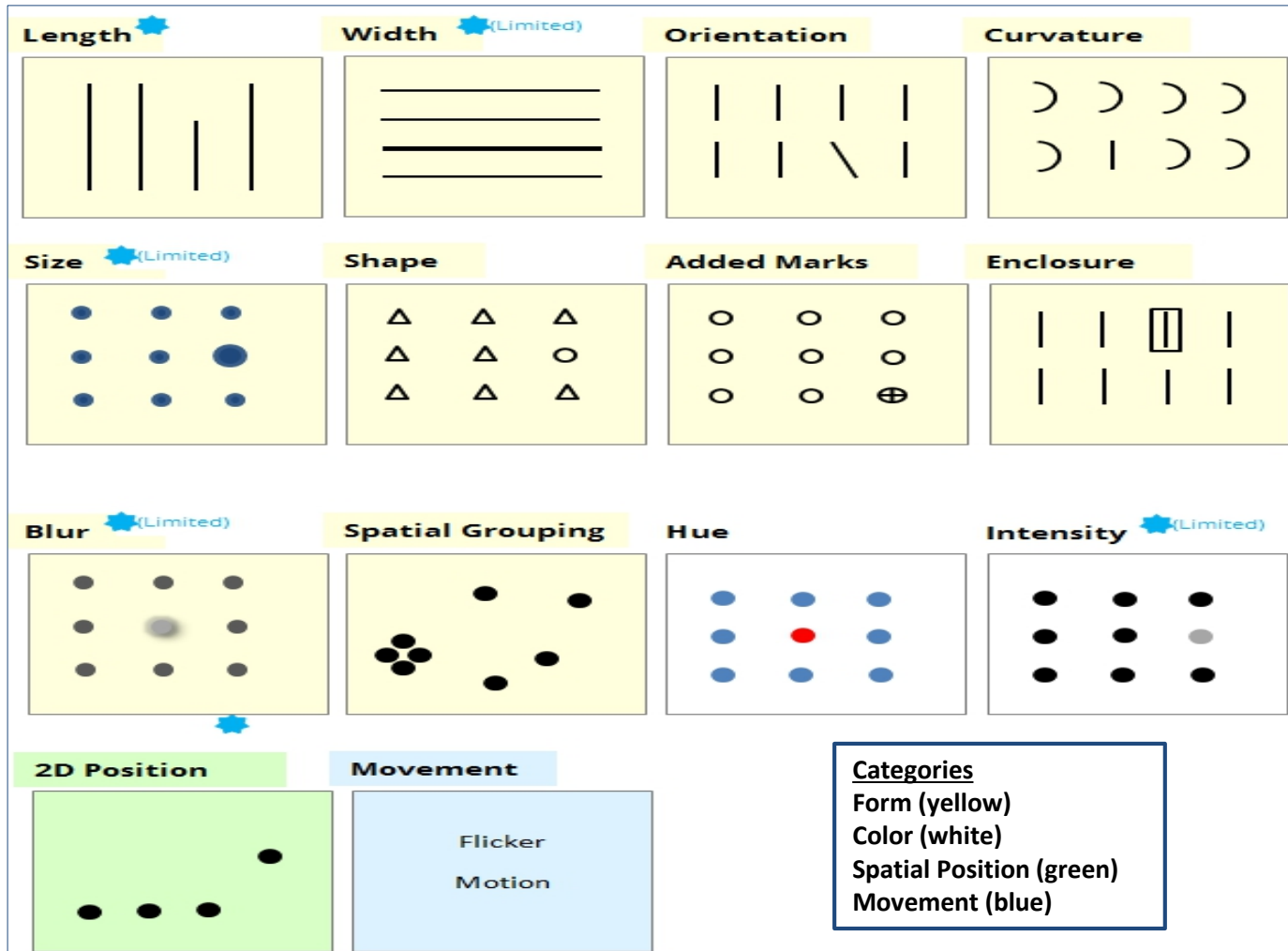
Parts of the Human Brain



Gestalt Principles of Perception



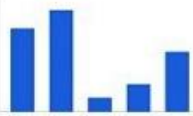
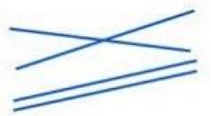
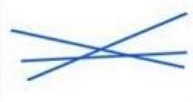






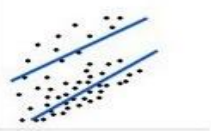


Preattentive Attributes



 Quantitatively perceived



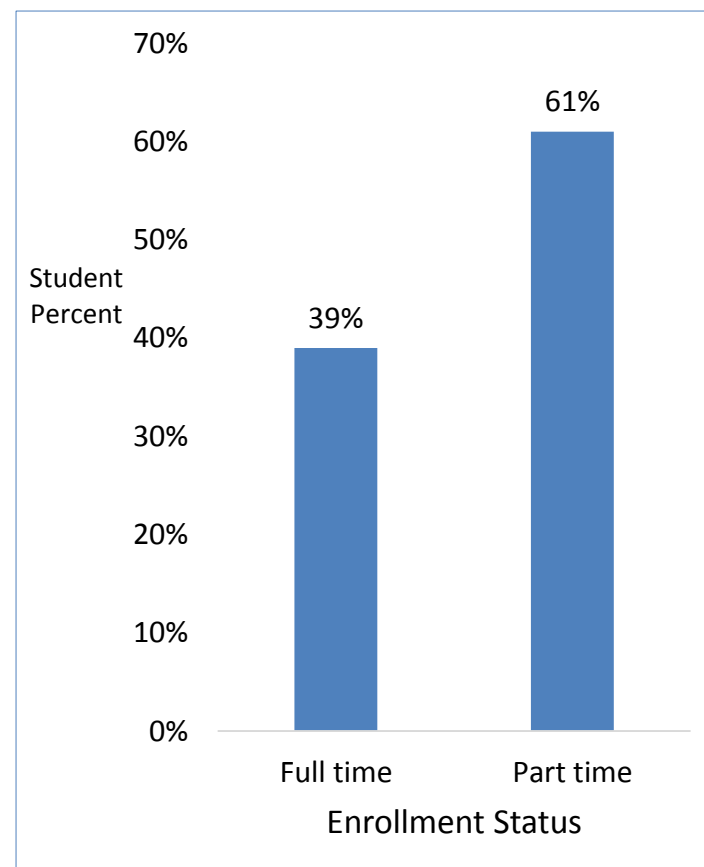
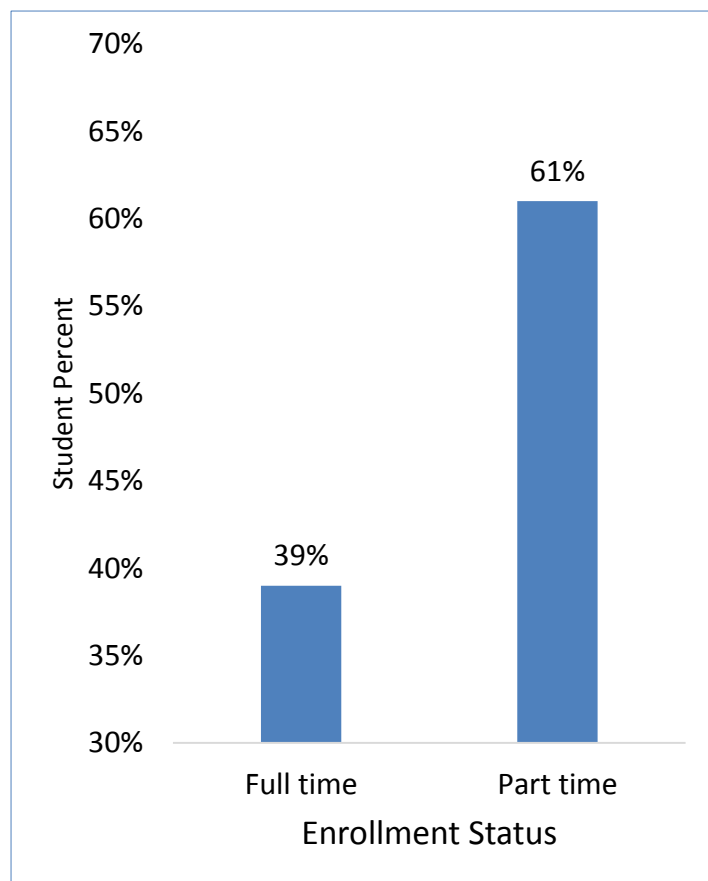
Preattentive Attributes

Pattern	Example	Pattern	Example
High, low and in between		Non-intersecting and intersecting	
Going up, going down and remaining flat		Symmetrical and skewed	
Steep and gradual		Wide and narrow	
Steady and fluctuating		Clusters and gaps	
Random and repeating		Tightly and loosely distributed	
Straight and curved		Normal and abnormal	



Principles and Common Sense

Spring 2018 Wake Tech Curriculum Student Enrollment Status

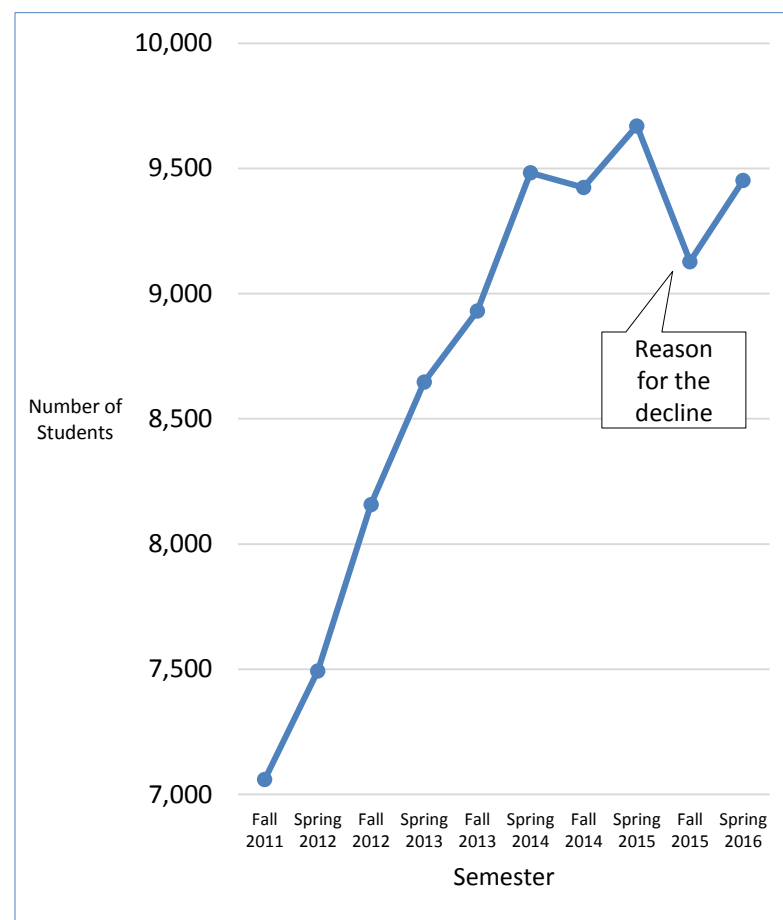
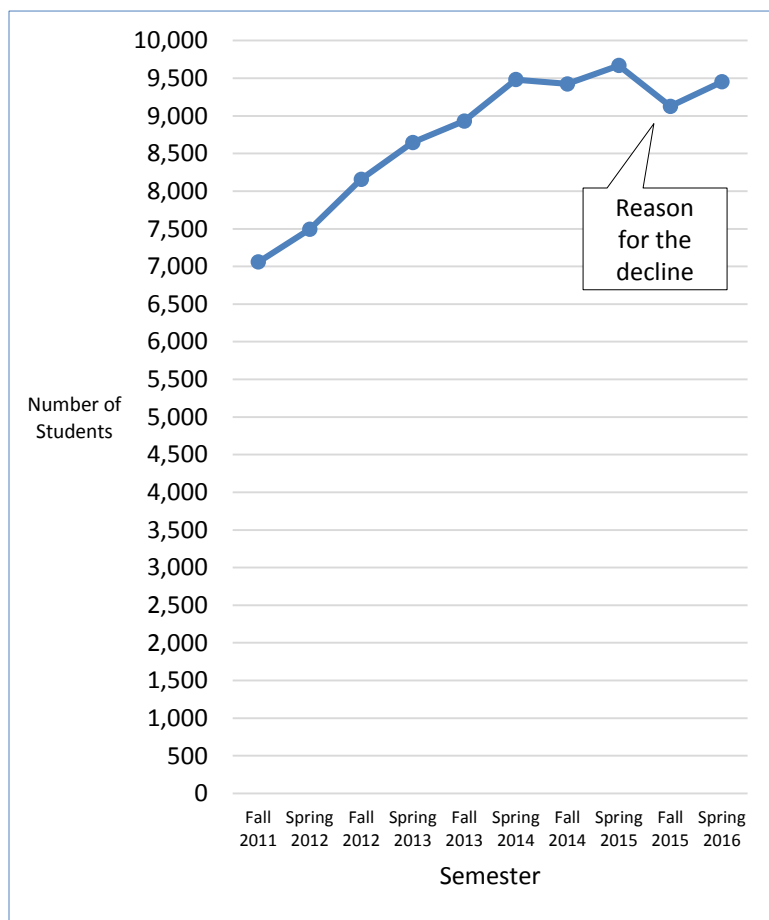


Data Source: Curriculum Student Profile for Spring 2018, The Office of Strategic Planning and Assessment, Enrollment & Student Services,
https://www.waketech.edu/sites/default/files/page-file-uploads/Curriculum%20Student%20Profile%202018%20Spring_2018_04_04.pdf



Principles and Common Sense

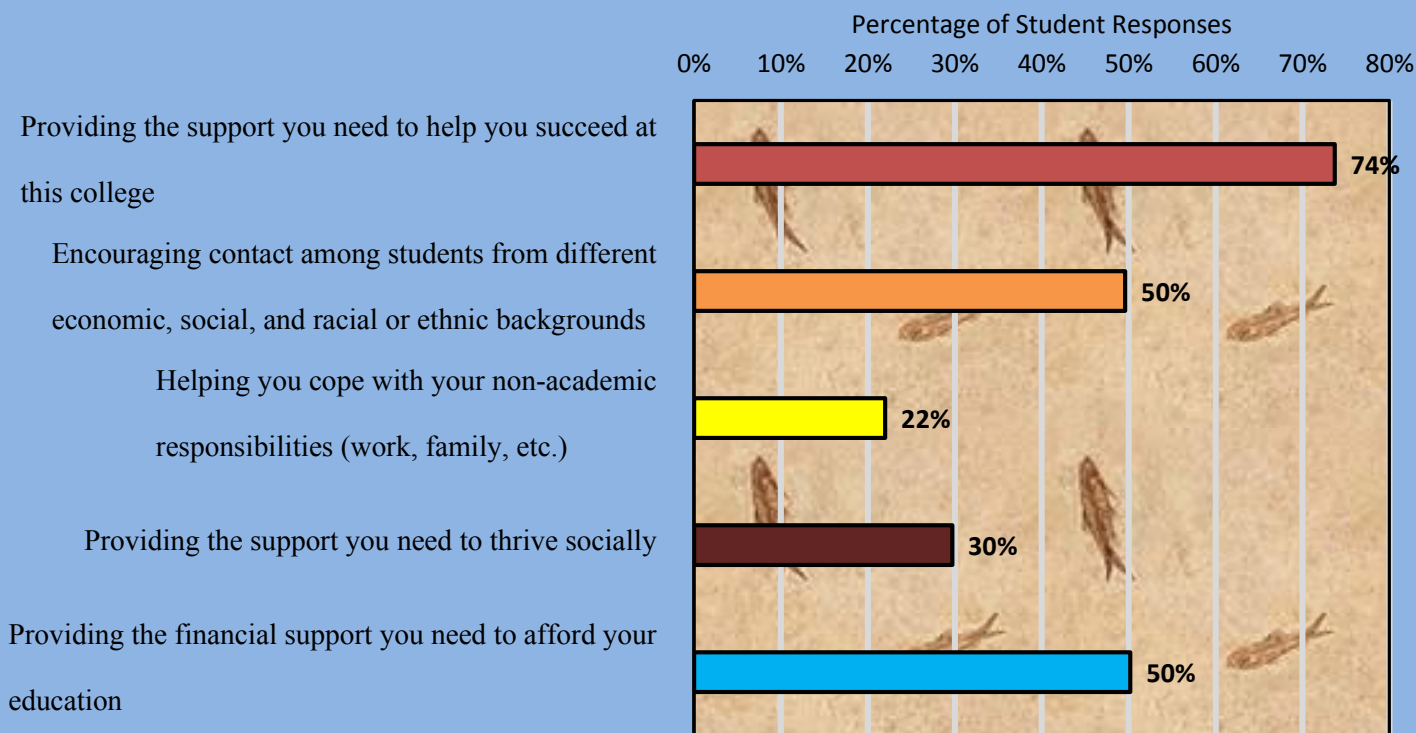
Wake Tech Unduplicated Curriculum Enrollment Online Campus from 2011 - 2016



Principles and Common Sense

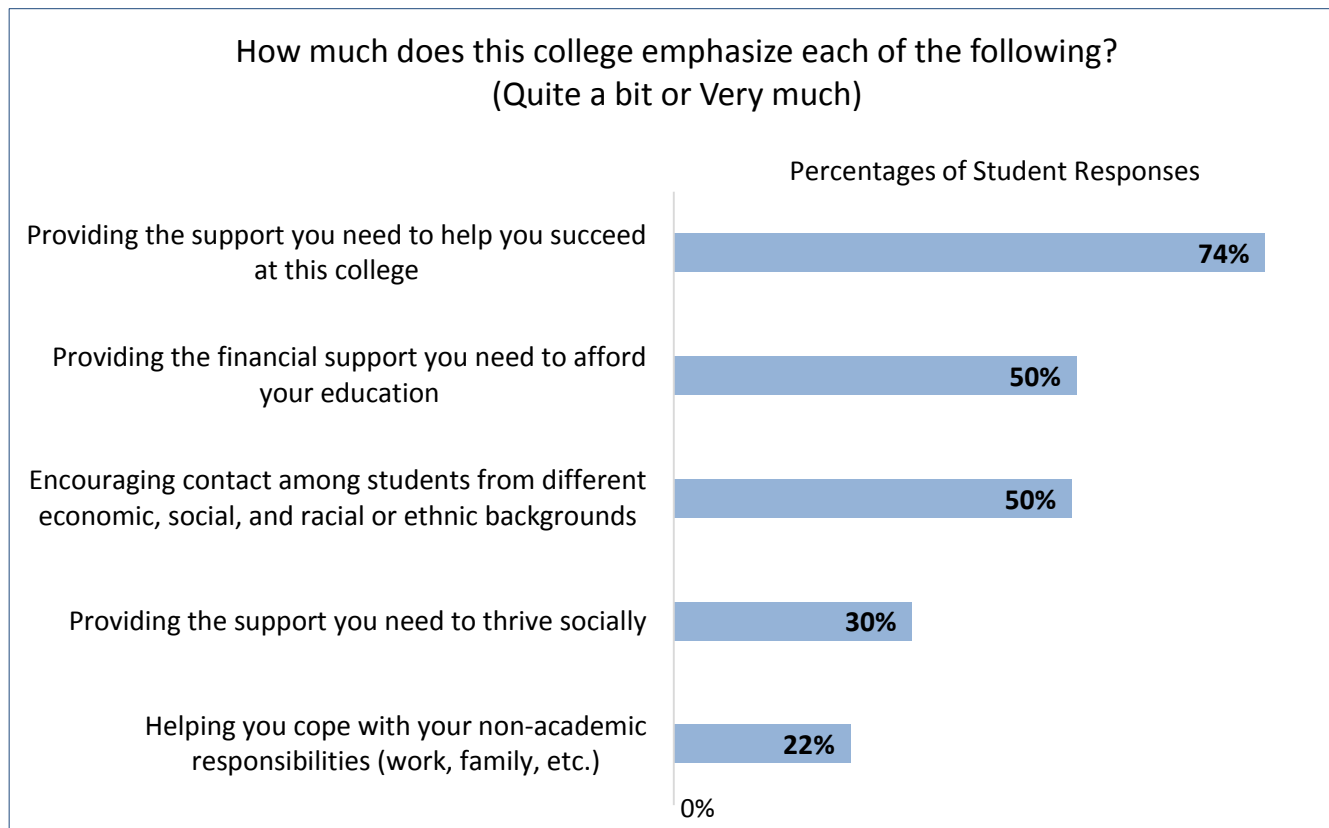
*Wake Technical Community College
Support for Learners from CCSSE 2015 Survey*

**How much does this college emphasize each of the following?
(Quite a bit or Very much)**



Principles and Common Sense

Wake Technical Community College Support for Learners from the 2015 Community College Survey of Student Engagement



Wake Tech Fall 2017 First Time in College Student Count by North Carolina County

Tableau Visual

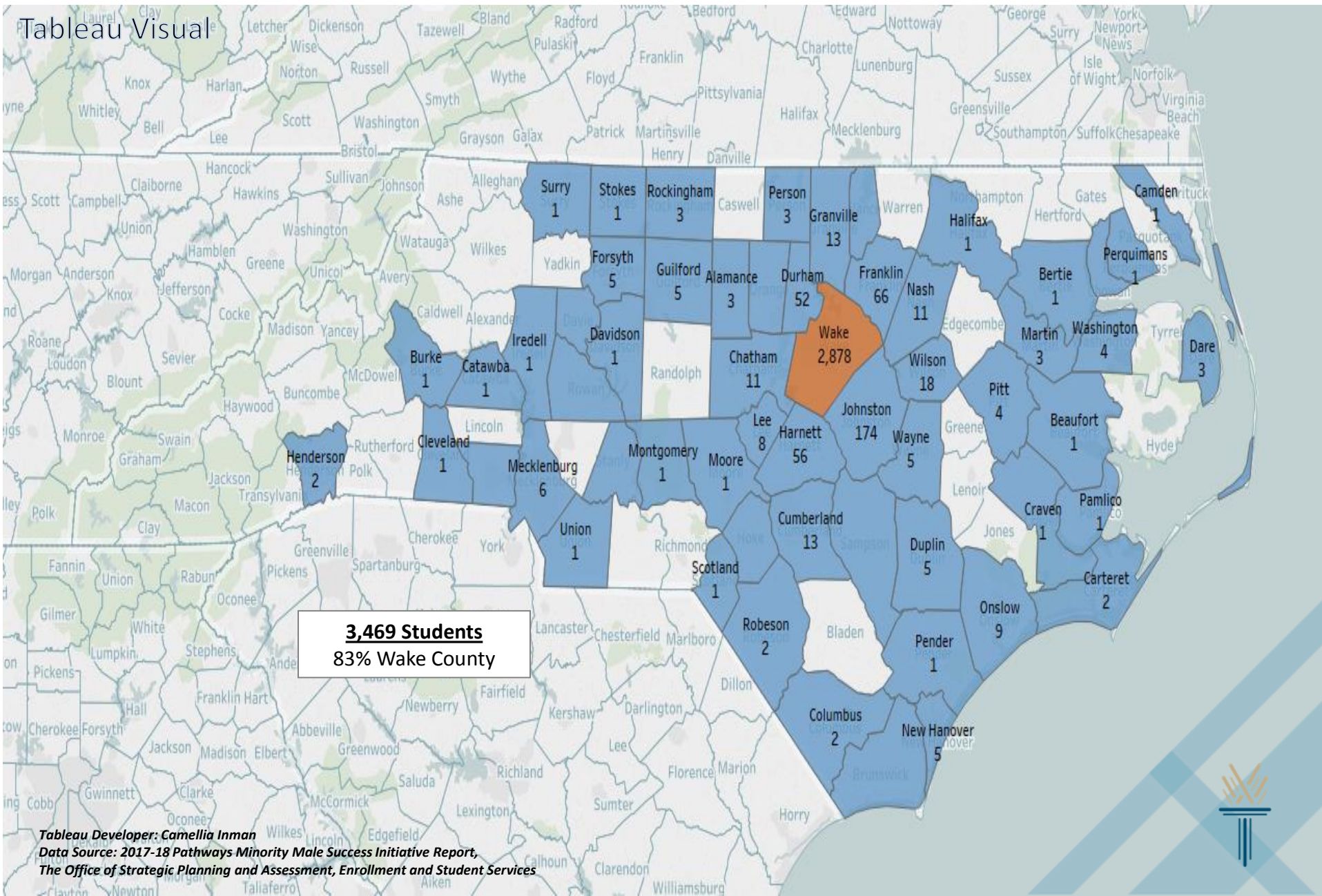


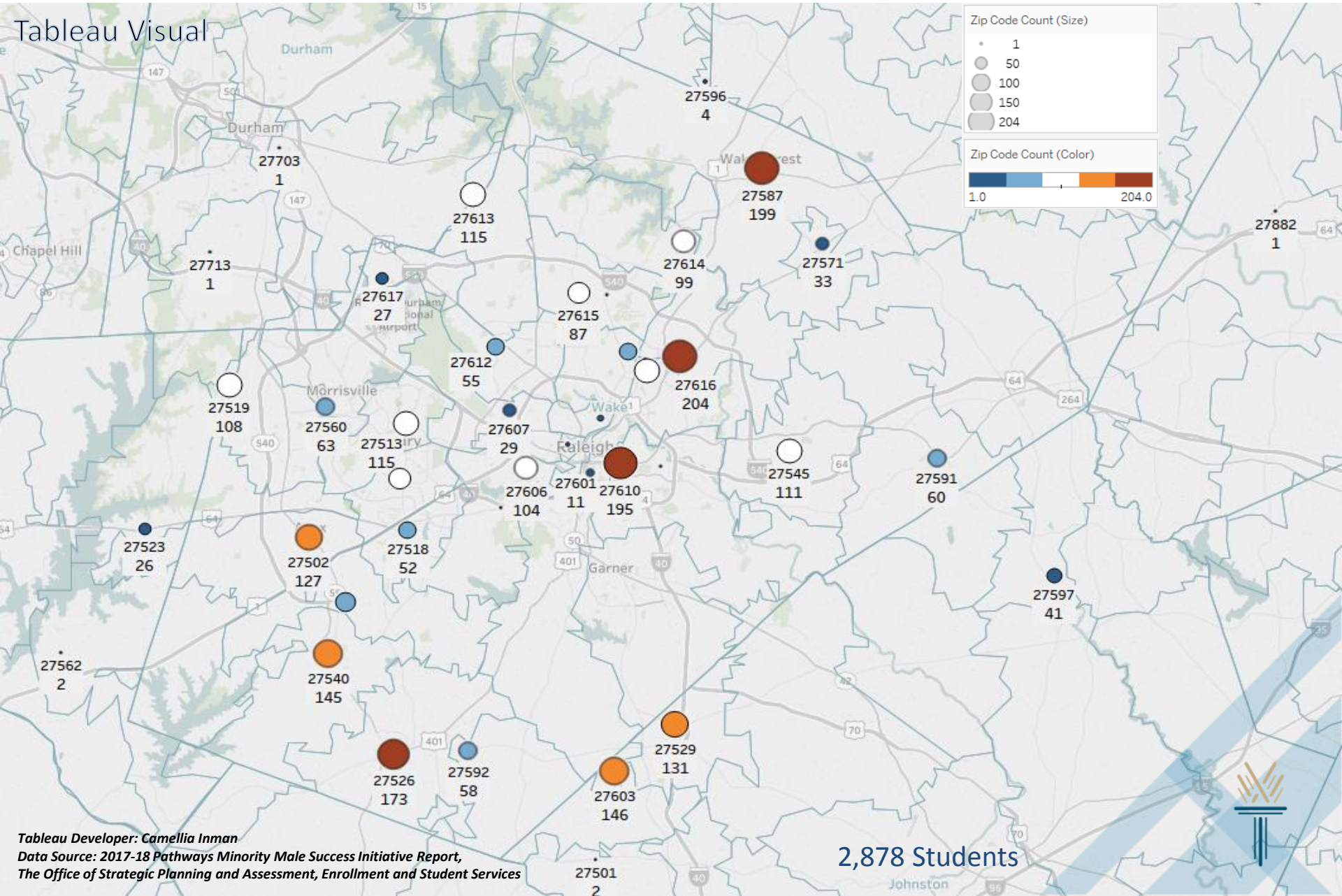
Tableau Developer: Camellia Inman

Data Source: 2017-18 Pathways Minority Male Success Initiative Report,

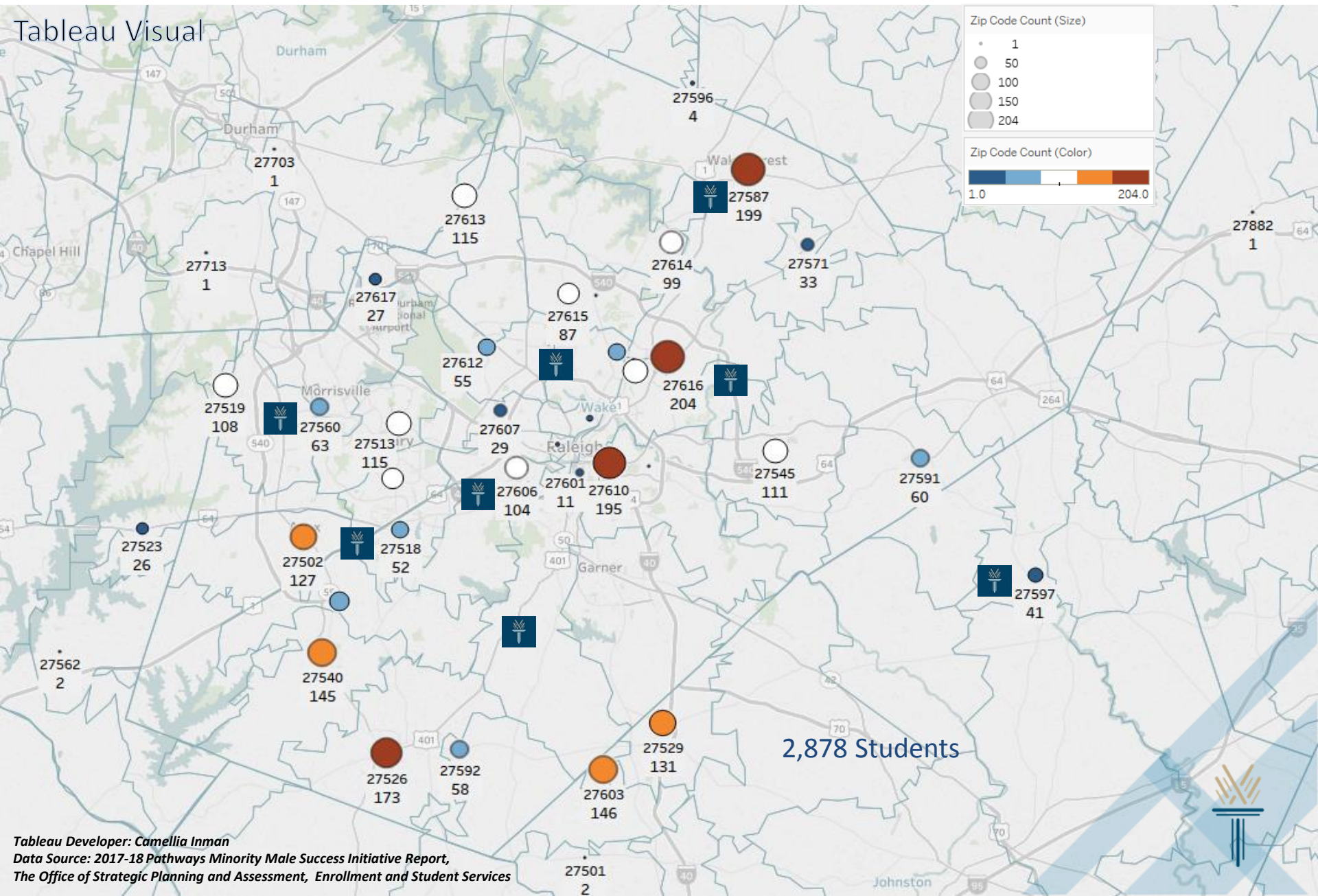
The Office of Strategic Planning and Assessment, Enrollment and Student Services



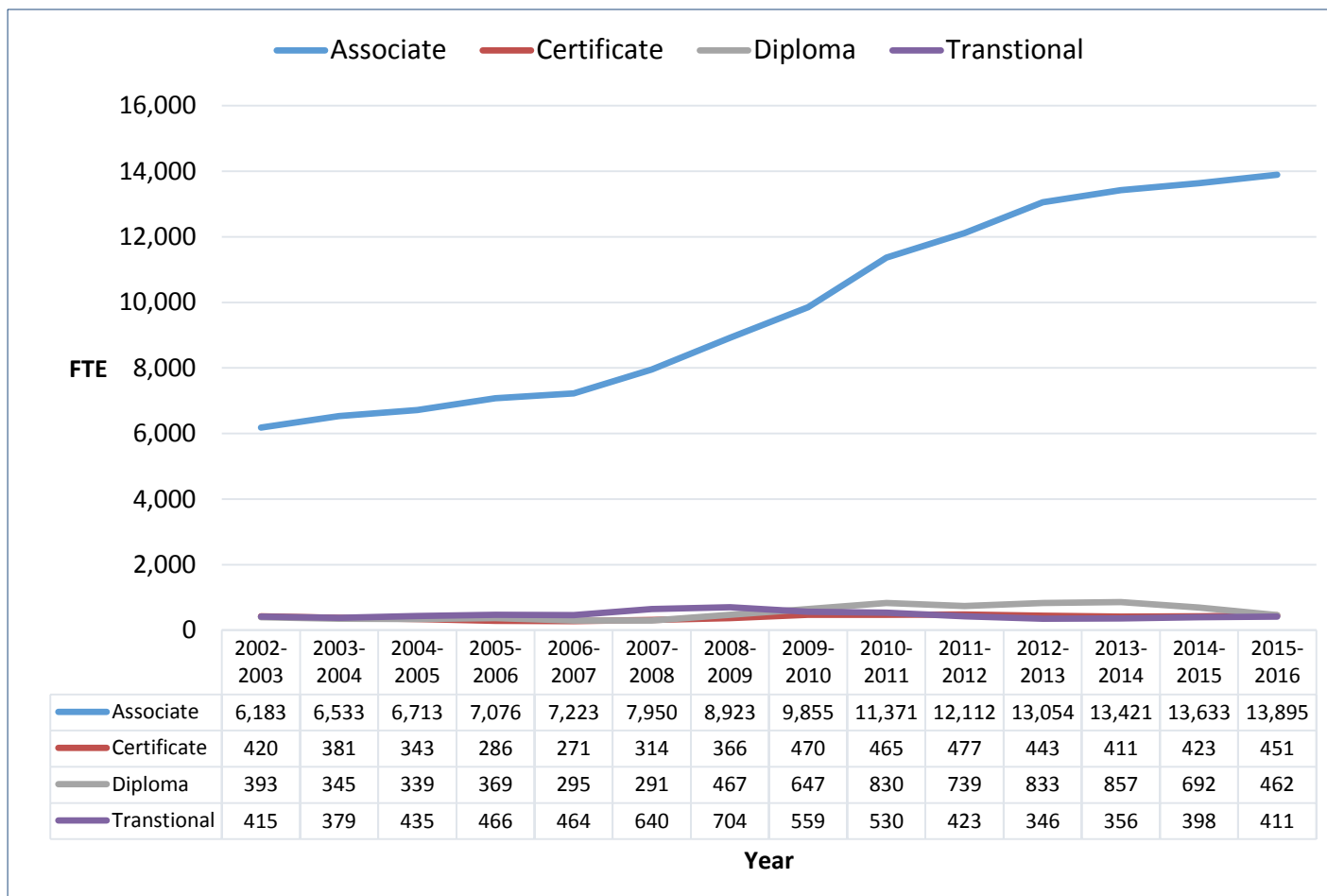
Wake Tech Fall 2017 First Time in College Student Count by Zip Code in Wake County



Wake Tech Fall 2017 First Time In College Students Proximity to Wake Tech Campuses and Centers by Zip Code in Wake County



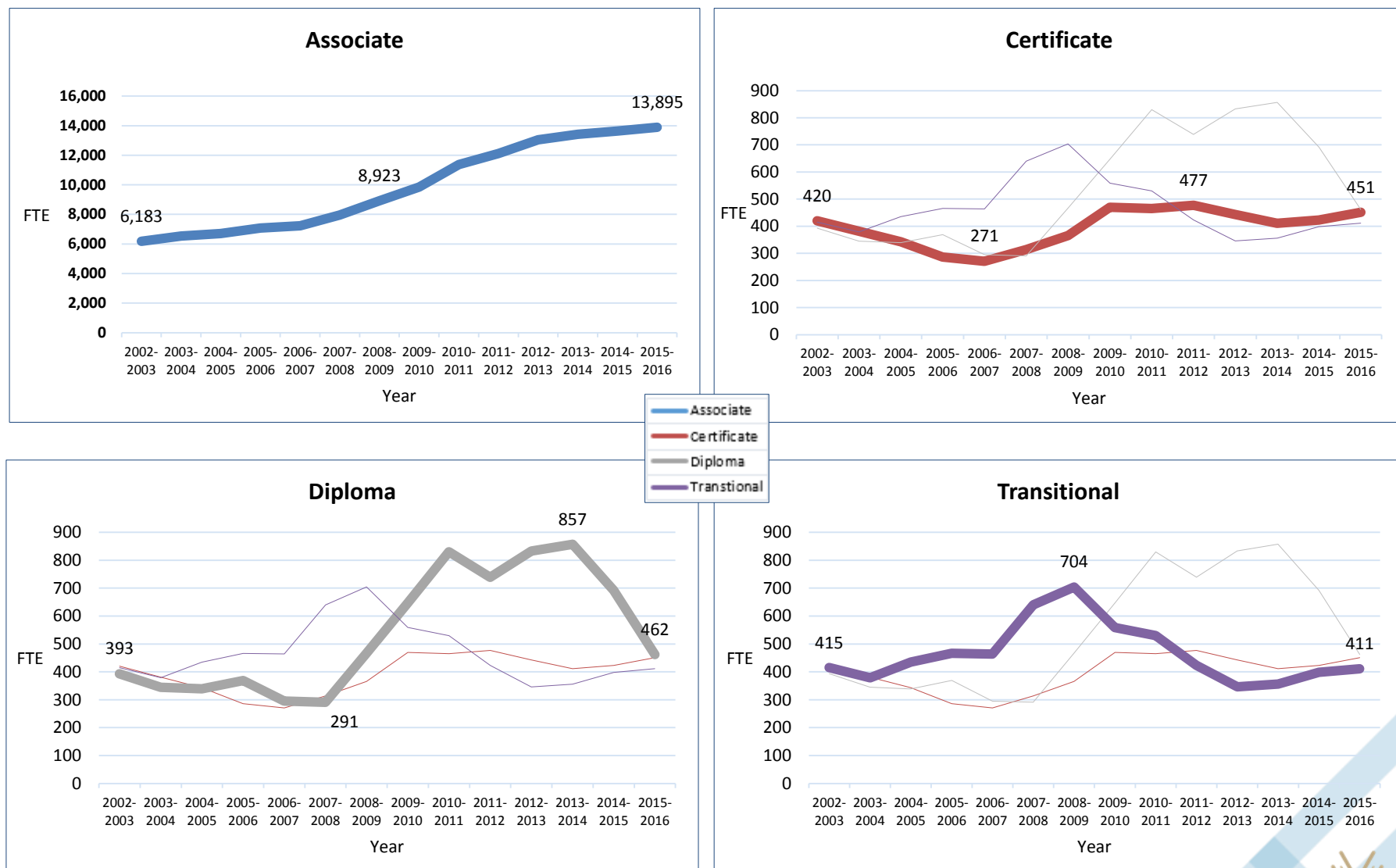
Wake Tech Curriculum Education Annualized Full-Time Equivalent (FTE)



Data Source: NCCCS Data Warehouse (CURCEFTEA26) 3/6/2017, Wake Tech Fact Book August 2017, Wake Tech Institutional Effectiveness Accreditation, and Research

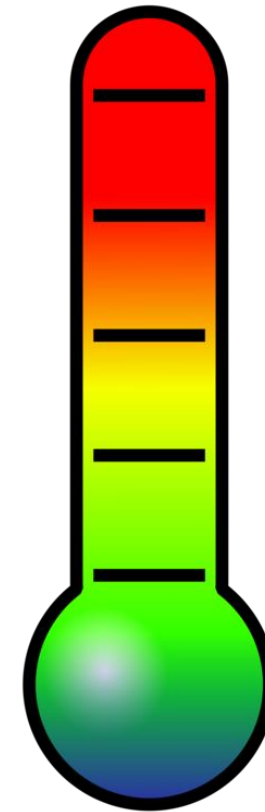
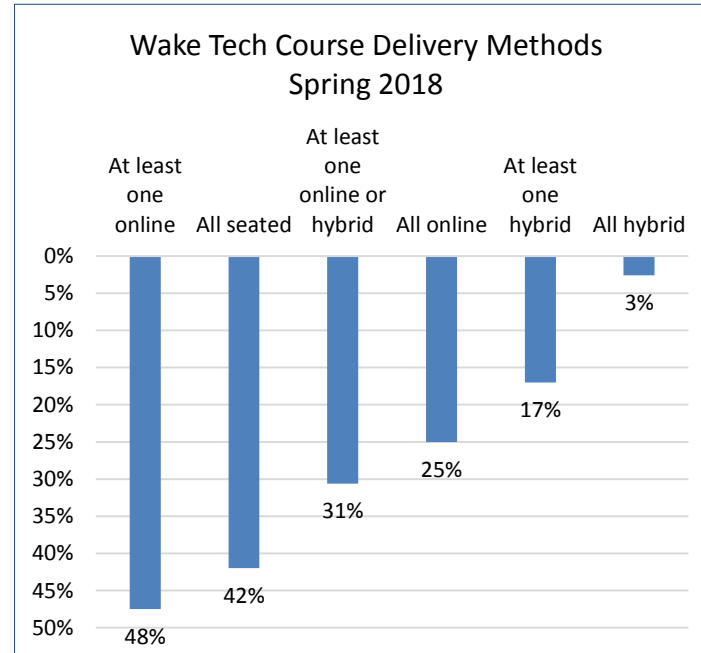
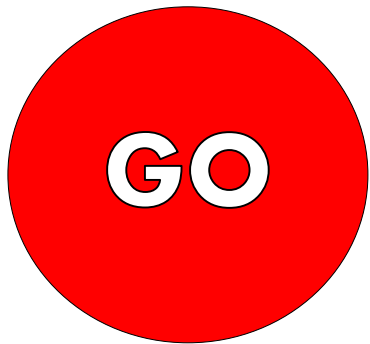


Wake Tech Curriculum Education Annualized Full-Time Equivalent (FTE)



The Dataviz Golden Rule

Don't betray your audience's first impression.



COLD

COOL

WARM

HOT

VERY HOT



The Dataviz Golden Ratio

The Golden Ratio is 1.618 to 1 rectangle.

It also means the focal point is 61.8% of height times 61.8% of width.



Image Source: Unsplash.com, <https://unsplash.com/search/photos/the-golden-rule>

References: <https://www.evolytics.com/data-driven-storytelling-tips-iron-viz-champion/5-use-the-golden-ratio/>
<https://visual.ly/community/infographic/how/golden-ratio-design>



Dataviz Illusion



Image Source: Public Domain Images, <https://www.moillusions.com/modern-reflections-on-some-classic/>



Additional References

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Sharma, Nishith. "7 most common data visualization mistakes." 15 May 2015. *The Next Web*. Website. 1 October 2018.

Taylor, Twain. "How to Use the Gestalt Principles for Visual Storytelling #PoDV." 28 March 2014. *FusionBrew: The FusionCharts Blog*. Website. 25 September 2018.

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Takeaway:

1. Show the data
2. Make text easy to read
3. Use a zero origin
4. Don't exaggerate the slope
5. Integrate text and the graph
6. Reduce the clutter
7. Use color to enhance and guide
8. Be aware of colorblindness
9. Sometimes less is better
10. Use Golden Ratio Design

Sometimes we simply need to make it easier to do those things that work.



Thank you for attending.

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assessment.waketech.edu

Enjoy Lunch!



Image Source: Unsplash.com <https://unsplash.com/search/photos/sub>

