

# High-level accessibility review – BTAA (SimplyAnalytics Platform)

## Primary Point of Contact

John Truong  
Project Manager

Deque Systems, Inc.

Web: [www.deque.com](http://www.deque.com)

Email: [john.truong@deque.com](mailto:john.truong@deque.com)

**January 24, 2022**



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# SimplyAnalytics Platform

## Summary

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### Top 3 problems for the SimplyAnalytics Platform

This assessment covers portions of the SimplyAnalytics Platform. The assessment revealed serious problems with screen reader compatibility, resulting in screen reader users missing important information needed to understand content and operate features.

1. **Color Contrast** – Low contrast for vital controls and informative content was observed throughout the site. Low vision users will experience considerable difficulty when attempting to perceive content and functionality throughout the site.
2. **Links** – Links that are either missing an accessible label or are not included in the focus order are found throughout the site. While this problem does not affect every link, it does affect enough links at vital points of the flow where this could create serious problems for users who rely on Assistive Technology (AT) to use the site.
3. **Focus Management** – Serious issues were found with focus management as it relates to modal windows. For any AT user who is new to the site, this represents serious problems with understanding how the site functions.

### Accessibility findings

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#### Project wide issues

The issues presented in this section were identified in multiple pages and are recorded here to avoid repetition. These are applicable to each screen. Due to particularities, similar issues are still reported on a page per page basis, where applicable.

#### Automated findings using Axe

Issues found through automated testing come from the Axe plugin, an open source accessibility testing tool that is available for Chrome, Firefox and Edge. Details here: <https://www.deque.com/products/axe/>.

1. **SC 4.1.2 A** – The ‘collapse side bar’ control is missing a programmatic name.

#### Additional manual findings using NVDA screen reader

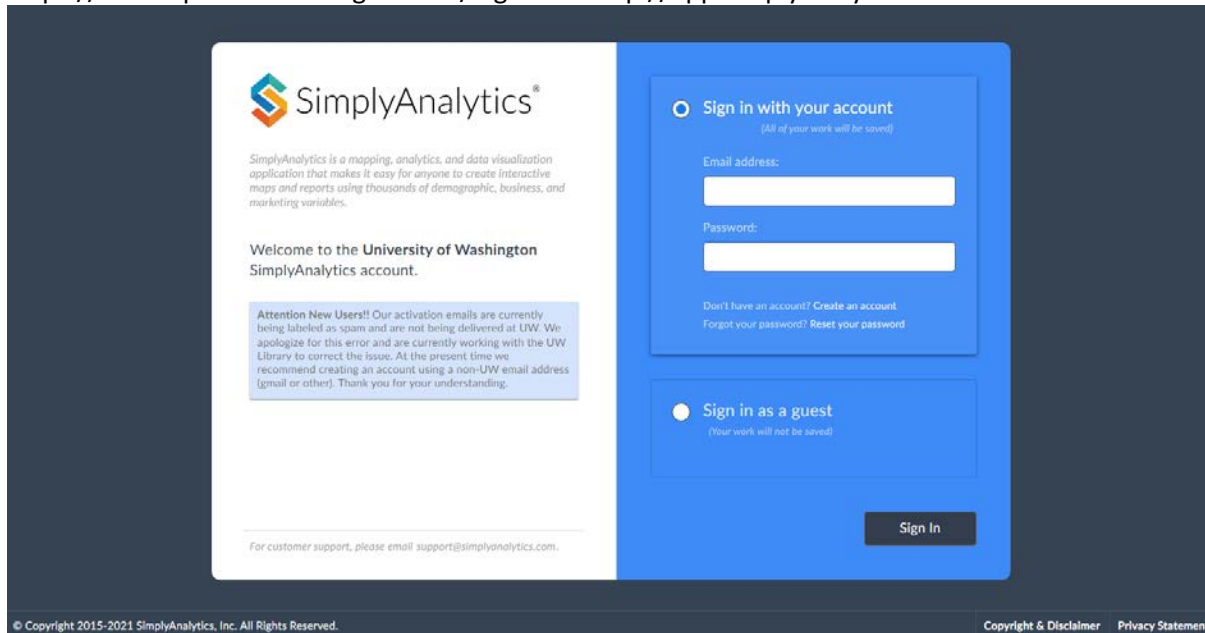
1. **SC 2.2.1 A** – The application times out without providing any warning to an AT user.
2. **SC 4.1.3 AA** – Whenever there is a ‘loading’ or ‘in progress’ interstitial message, the message is not automatically announced by AT.
3. **SC 1.4.10 AA** – The entire application does not reflow when a reflow viewport 320px wide is applied.

## 1. Login Page

**Source:** <https://app-simplyanalytics-com.offcampus.lib.washington.edu/login.html>

**Test case:** Sign in as a guest

<https://offcampus.lib.washington.edu/login?url=http://app.simplyanalytics.com>



### Automated findings using Axe

1. **SC 1.4.3 AA** – The ‘SimplyAnalytics is a mapping, analytics, and data visualization application...’, ‘For customer support, please email...’ content is low in contrast. A 2.37:1 contrast ratio is observed.
2. **SC 1.4.3 AA** – The ‘Attention New Users!! Our activation emails...’ content is low in contrast. A 3.5:1 contrast ratio is observed.
3. **SC 1.4.3 AA** – The ‘Sign in with your account’ content is low in contrast. A 3.18:1 contrast ratio is observed.
4. **SC 1.4.3 AA** – The ‘All of your work will be saved’ content is low in contrast. A 1.97:1 contrast ratio is observed.
5. **SC 1.4.3 AA** – The ‘Email address’, ‘Password’, ‘Don’t have an account?’, ‘Forgot your password?’ content is low in contrast. A 2.28:1 contrast ratio is observed.
6. **SC 1.4.3 AA** – The ‘Create an account’, ‘Reset your password’ content is low in contrast. A 2.85:1 contrast ratio is observed.
7. **SC 1.4.3 AA** – The ‘Sign in as a guest’ content is low in contrast. A 2.82:1 contrast ratio is observed.
8. **SC 1.4.3 AA** – The ‘Your work will not be saved’ content is low in contrast. A 2.1:1 contrast ratio is observed.

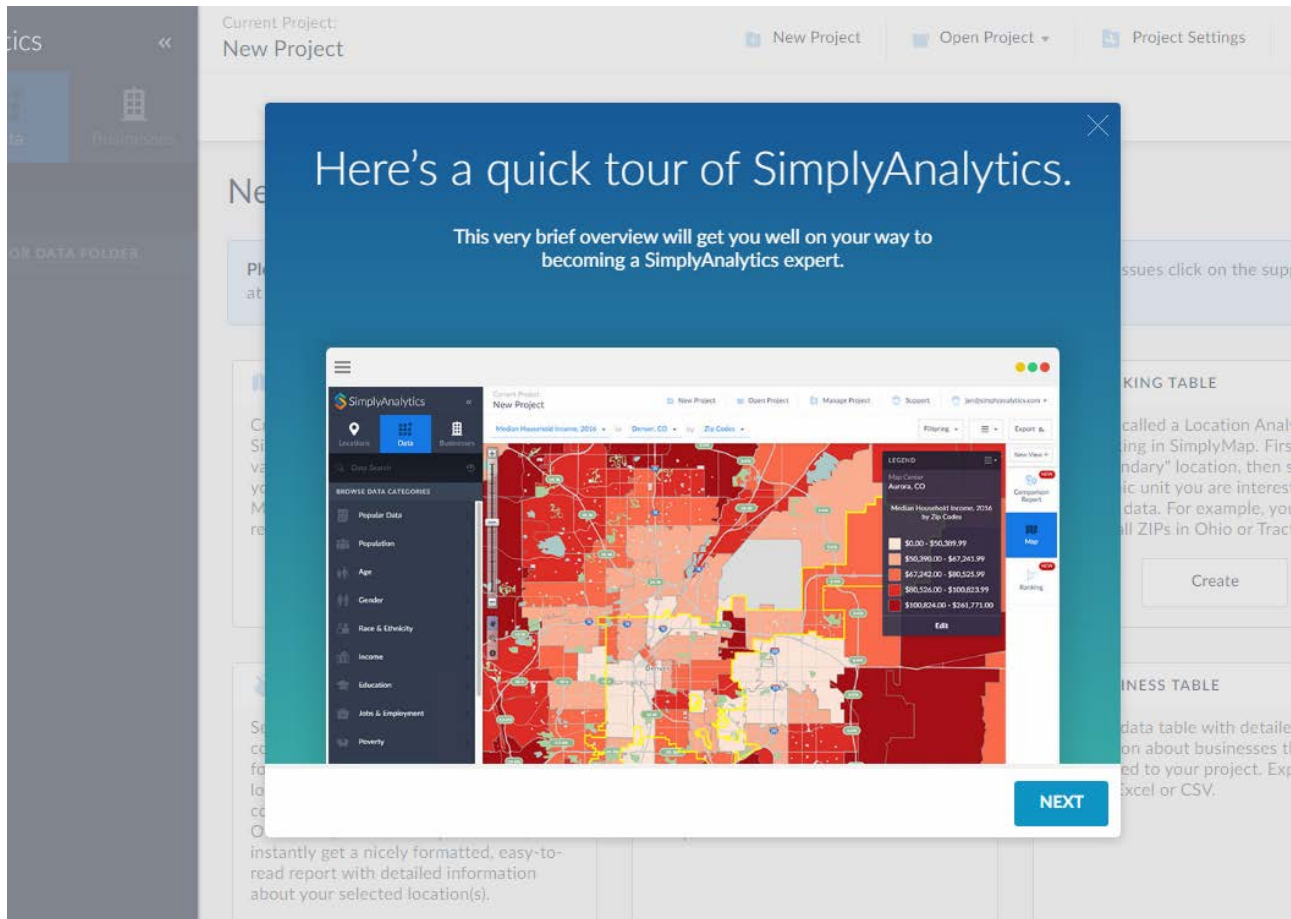
### Additional manual findings using NVDA screen reader

1. **SC 1.4.3 AA** – The ‘Please provide a valid email address to sign in’ validation message is low in contrast. A 3.61:1 contrast ratio is observed.
2. **SC 2.4.7 AA** – The ‘Sign In’ control does not receive a visible focus indicator.
3. **SC 4.1.3 AA** – The ‘Please provide a valid email address to sign in’ validation message does not automatically announce when it is triggered.
4. **SC 4.1.2 A** – The ‘Sign in with your account’ and ‘Sign in as a guest’ custom radio inputs are not semantically identified as radio inputs with either native HTML or an ARIA alternative.

## 2. Tutorial Modal

**Source:** <https://app-simplyanalytics-com.offcampus.lib.washington.edu/index.html>

**Test case:** Navigate through the tutorial pop-up which appears for new users.



### Automated findings using Axe

1. **SC 1.1.1 A** – The slide2.jpg image is missing an empty alternative description.
2. **SC 1.4.3 AA** – The 'Next', 'Back' content is low in contrast. A 3.46:1 contrast ratio is observed.
3. **SC 1.1.1 A** – The slide3.gif, slide4.gif, slide5.gif, slide6.gif, sa\_logo\_white.svg images are missing a descriptive alternative description.
4. **SC 1.4.3 AA** – The 'Go to SimplyAnalytics' content is low in contrast. A 3.24:1 contrast ratio is observed.
5. **SC 1.4.3 AA** – The 'Replay Tutorial' content is low in contrast. A 2.67:1 contrast ratio is observed.

### Additional manual findings using NVDA screen reader

1. **SC 1.4.3 AA** – The 'Next' content is low in contrast when a mouse user hovers over the control. A 2.67:1 contrast ratio is observed.
2. **SC 1.4.3 AA** – The 'Back' content is low in contrast when a mouse user hovers over the control. A 2.99:1 contrast ratio is observed.
3. **SC 1.4.11 AA** – The gradient that makes up the 'progress indicator' line does not consistently provide sufficient contrast against an adjacent color. A contrast range of 1.96:1 to 1.52:1.
4. **SC 2.2.2 A** – A user is unable to pause, stop or hide the animated GIF images.
5. **SC 4.1.2 A** – The 'Go to SimplyAnalytics', 'Replay Tutorial', 'X' (close) links are missing an href attribute.
6. **SC 4.1.2 A** – The 'X' (close) link is missing a programmatic name.

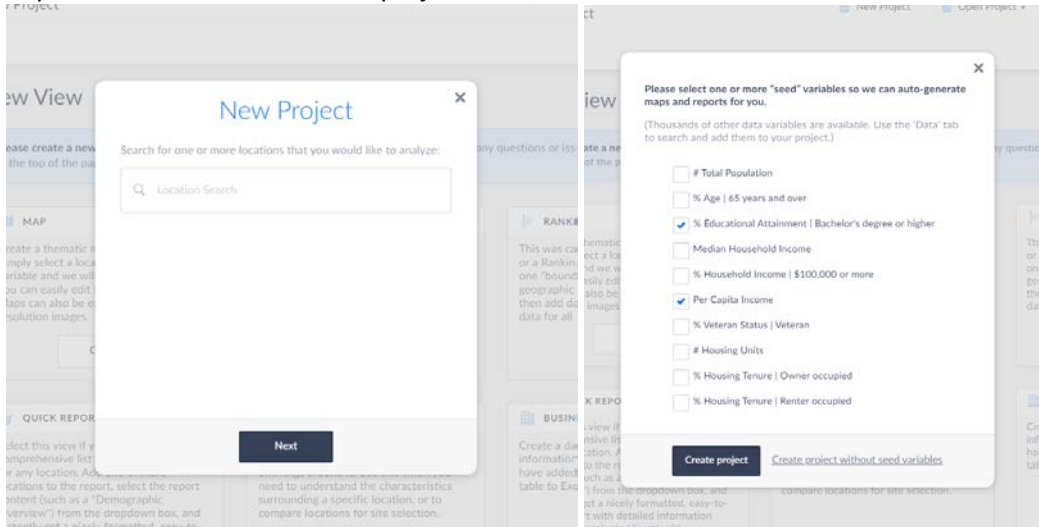
7. **SC 2.4.3 A** – When the page loads and the tutorial modal is available, focus is not automatically set to the modal.
8. **SC 2.4.3 A** – A user’s focus is not looped within the modal window and the user is able to escape the modal window.
9. **SC 1.3.2 A** – A screen reader user is able to read content outside the modal window, that is visually obscured and should not be accessed until the modal is dismissed.
10. **SC 2.4.7 AA** – The ‘X’ (close), ‘Back’, ‘Next’, ‘Go to Simply Analytics’ and ‘Replay Tutorial’ controls do not receive a clearly visible focus indicator when the elements receive focus.
11. **SC 4.1.2 A** – The yellow ‘progress indicator’ is missing required ARIA role(s) and attributes to be semantically identified as a progress indicator and to be accessible to AT.
12. **SC 1.3.3 A** – The tutorial has instances where it refers to the “left side of the screen”, “the right side of the screen” and “the large center area” in order to direct a user to functionality within the platform. This is not helpful to some AT users and instead the direction should direct users to a logical heading, defined section, or landmark region that can be both visually and programmatically identified.

### 3. New Project Modal

**Source:** <https://app-simplyanalytics-com.offcampus.lib.washington.edu/index.html>

**Test case:** Create a new project. Enter “Seattle, WA” for the location search.

Default options are pre-selected. Remove check for “Median Household Income” and add check for “Per Capita Income”. Select “Create project”



#### Automated findings using Axe

1. **SC 1.4.3 AA** – The ‘Search for one or more locations that you would like to analyze’, ‘Thousands of other data variables are available. Use the...’ content is low in contrast. A 3.63:1 contrast ratio is observed.
2. **SC 1.4.3 AA** – The ‘Create project without seed variables’ content is low in contrast. A 3.4:1 contrast ratio is observed.

#### Additional manual findings using NVDA screen reader

Not completed due to Insufficient time

#### 4. Comparison Table Page

**Source:** <https://app-simplyanalytics-com.offcampus.lib.washington.edu/index.html>

**Test case:** Select view option “Comparison Table”

- Select category “Gender”
- Select option “% Sex | Female”
- Return to Comparison Table

	Seattle, WA	USA
% Educational Attainment   Bachelor's degree or higher, 2021 <small>dem est</small>	66.14%	32.36%
Per Capita Income, 2021 <small>dem est</small>	\$60,640.22	\$34,400.41
% Sex   Female, 2021 <small>dem est</small>	49.27%	50.72%

#### Automated findings using Axe

1. **SC 1.4.3 AA** – The ‘Current Project’ content is low in contrast. A 2.8:1 contrast ratio is observed.
2. **SC 1.4.3 AA** – The ‘Locations’ content is low in contrast. A 4.06:1 contrast ratio is observed.
3. **SC 1.4.3 AA** – The ‘Data’, ‘Comparison Table’ content is low in contrast. A 4.25:1 contrast ratio is observed.
4. **SC 1.4.3 AA** – The ‘Businesses’, ‘Retail’ content is low in contrast. A 1.82:1 contrast ratio is observed.
5. **SC 1.4.3 AA** – The ‘dem’, ‘est’ content is low in contrast. A 2.32:1 contrast ratio is observed.
6. **SC 2.4.1 A** – The page is missing a method to skip repeated blocks of content.

#### Additional manual findings using NVDA screen reader

Not completed due to Insufficient time



## 5. Quick Report

**Source:** <https://app-simplyanalytics-com.offcampus.lib.washington.edu/index.html>

**Test case:** Select view option “Quick Report”

- Scroll down to view the end of the table.

Current Project: New Project

New Project Open Project Project Settings Support Guest

Report Content: Demographic Overview

View Actions Export

	Seattle, WA		USA	
	City		USA	
<b>POPULATION &amp; SEX</b>				
Total Population, 2021	761,668		332,248,834	
Sex   Male, 2021	386,375	50.73%	163,528,200	49.22%
Sex   Female, 2021	375,292	49.27%	168,531,195	50.72%
<b>AGE</b>				
Age   Under 5 years, 2021	34,999	4.59%	19,971,684	6.01%
Age   5 to 9 years, 2021	33,888	4.45%	20,158,385	6.07%
Age   10 to 14 years, 2021	29,579	3.88%	21,008,551	6.32%
Age   15 to 17 years, 2021	15,035	1.97%	12,952,045	3.90%
Age   18 and 19 years, 2021	18,949	2.49%	9,165,704	2.76%
Age   20 to 24 years, 2021	59,619	7.83%	23,631,377	7.11%
Age   25 to 34 years, 2021	184,873	24.27%	45,278,606	13.63%

Comparison Table  
 Quick Report  
 Map  
 Ranking

### Automated findings using Axe

1. **SC 1.4.3 AA** – The ‘Current Project’, ‘Report Content’ content is low in contrast. A 2.8:1 contrast ratio is observed.
2. **SC 1.4.3 AA** – The ‘Demographic Overview’, ‘Locations’, ‘Quick Report’ content is low in contrast. A 4.25:1 contrast ratio is observed.
3. **SC 1.4.3 AA** – The ‘Data’, ‘Businesses’ content is low in contrast. A 1.82:1 contrast ratio is observed.
4. **SC 1.4.3 AA** – The ‘Show’ content is low in contrast. A 3.54:1 contrast ratio is observed.
5. **SC 1.4.3 AA** – The white text on grey background table row headings e.g. ‘Population & Sex’, ‘Age’ content is low in contrast. A 2.92:1 contrast ratio is observed.
6. **SC 1.4.3 AA** – The grey text on light grey background rows e.g. ‘Total Population 2021’, ‘Sex | Male, 2021’, ‘Sex | Female, 2021’ content is low in contrast. A 3.56:1 contrast ratio is observed.
7. **SC 2.4.1 A** – The page is missing a method to skip repeated blocks of content.

### Additional manual findings using NVDA screen reader

Not completed due to Insufficient time