

# Literacy

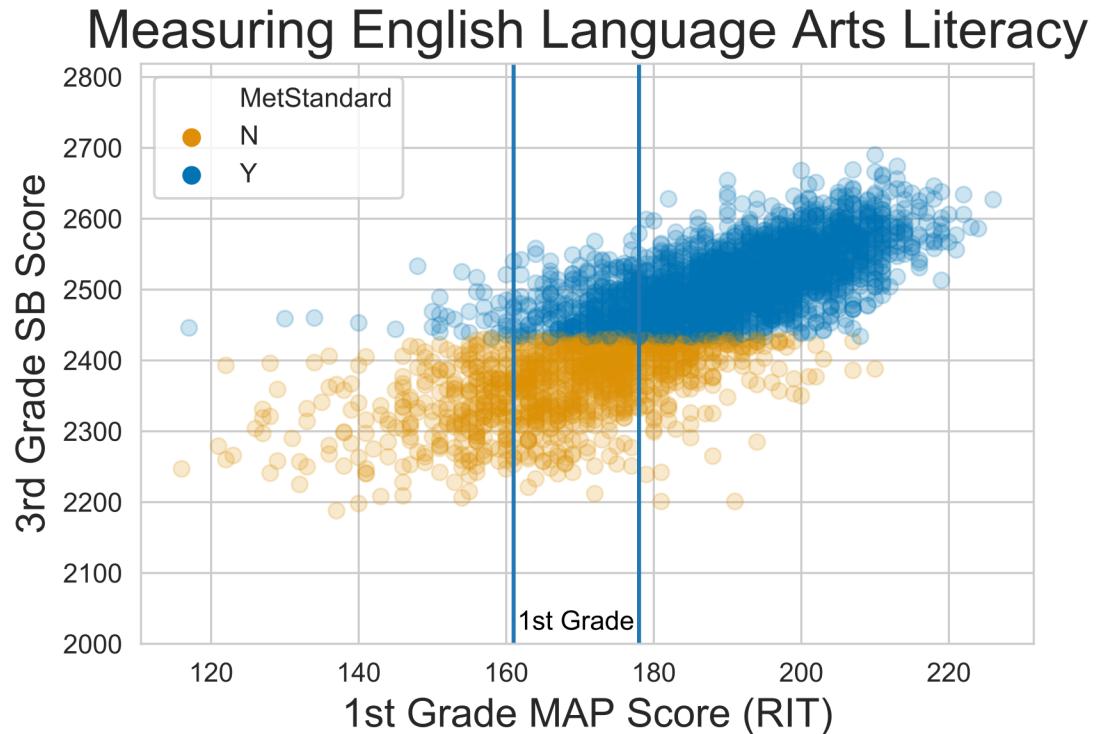
Achievement  
Educate  
Education  
Empower  
Innovate  
Instruction  
Literacy  
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Reading  
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Satisfaction  
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Science  
Social  
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Student-centered  
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Teaching  
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# Building Literacy

K-3 English Language Arts Education and Data Science  
by Sean Davern

# The Challenge(s)



# Serving K-3 Elementary Kids



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**page ahead**  
children's literacy program  
*Giving Kids in Need the Chance to Read*

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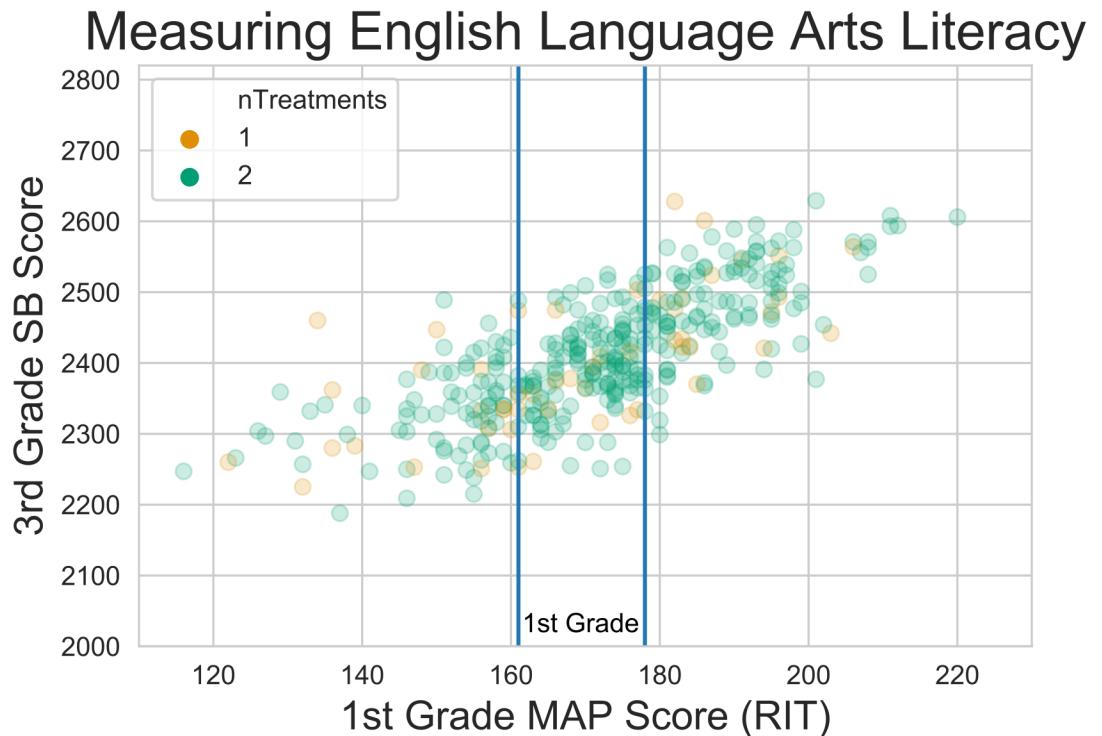
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Gives Kids in  
Need  
the Chance to  
Read!**

Page Ahead is the leading provider of children's books and literacy services in

**Give Books!**



# The Challenge(s)





# Model Results

	precision	recall	f1-score	support
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N	0.76	0.69	0.72	219
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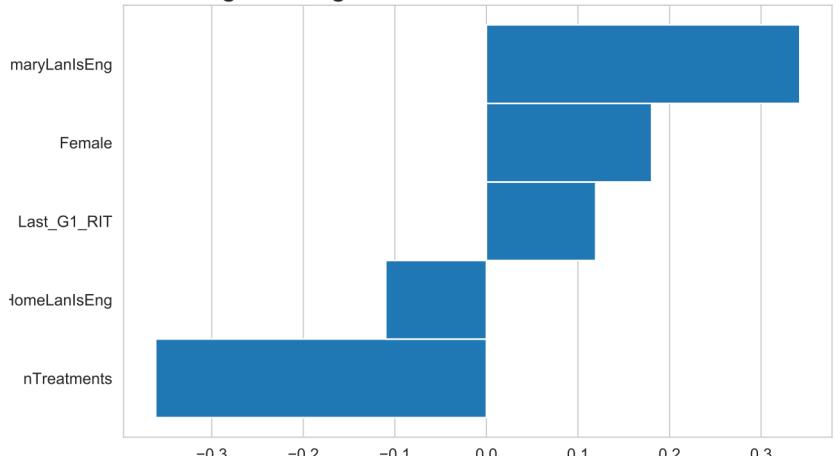
Y	0.87	0.90	0.88	492
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accuracy			0.84	711
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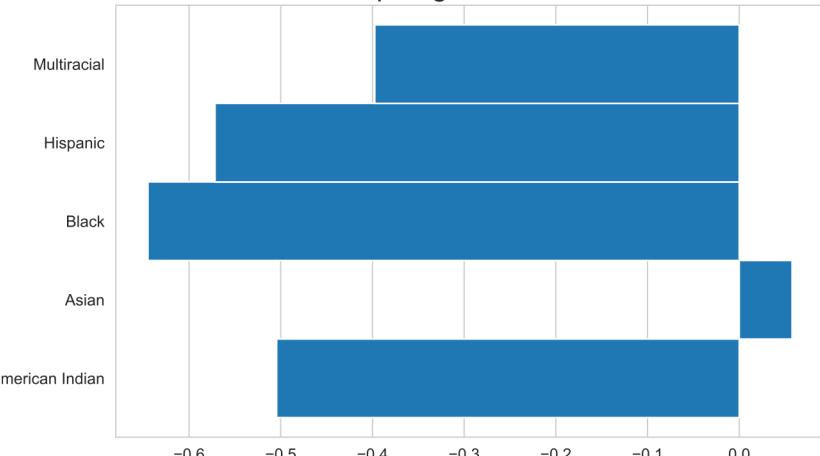
macro avg	0.81	0.80	0.80	711
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weighted avg	0.83	0.84	0.83	711
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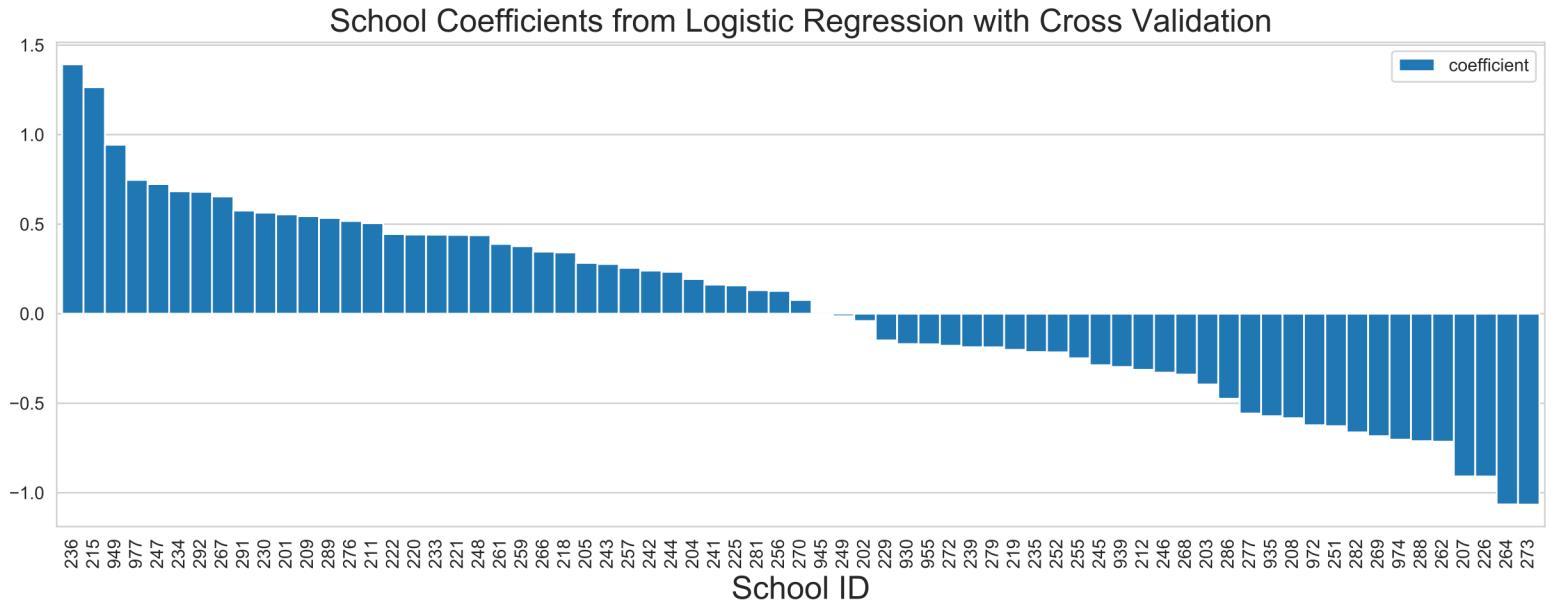
Logistic Regression with CV Coefficient Sizes



Ethnic Group LogRCV Coefficient Size

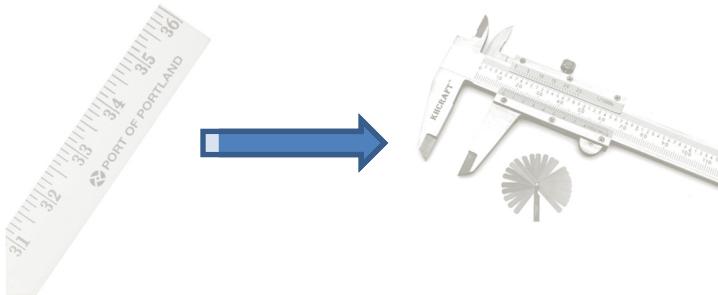


# Model Results



# Conclusions & Future Work

- Model growth rather than if met standard



- Consultation with Page Ahead
  - Expert advice
  - K Data + 2019 Smarter Balance results





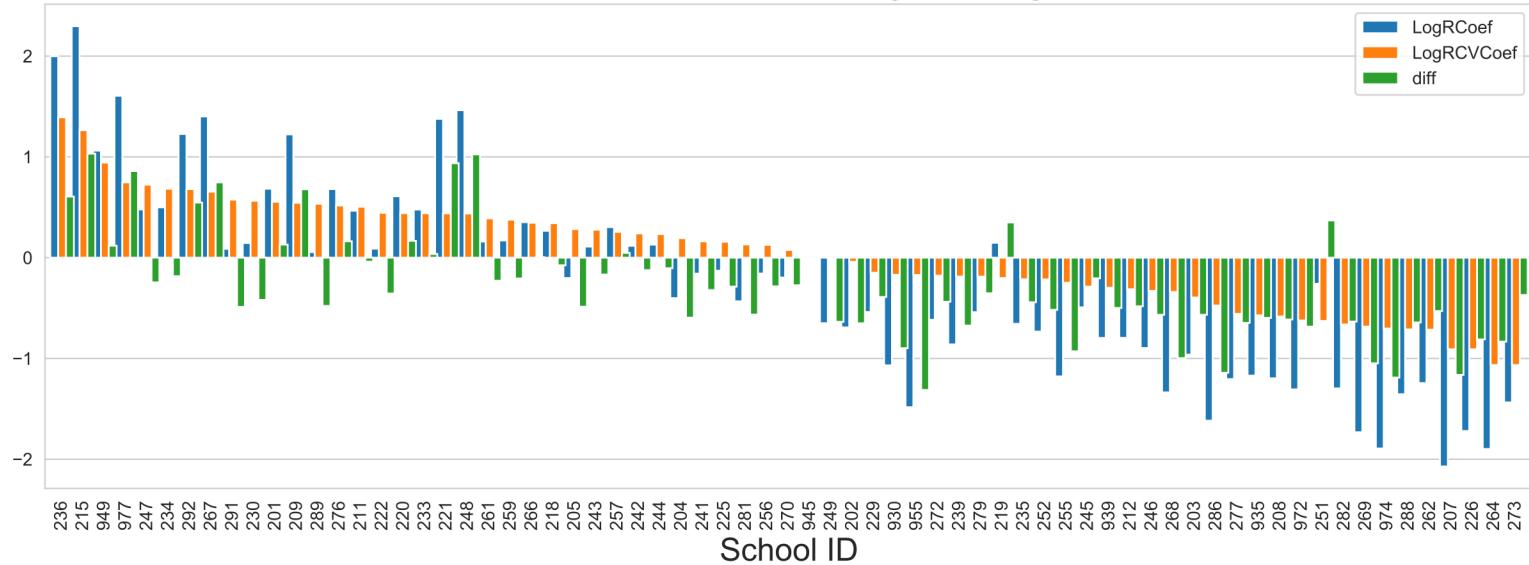
# Appendix



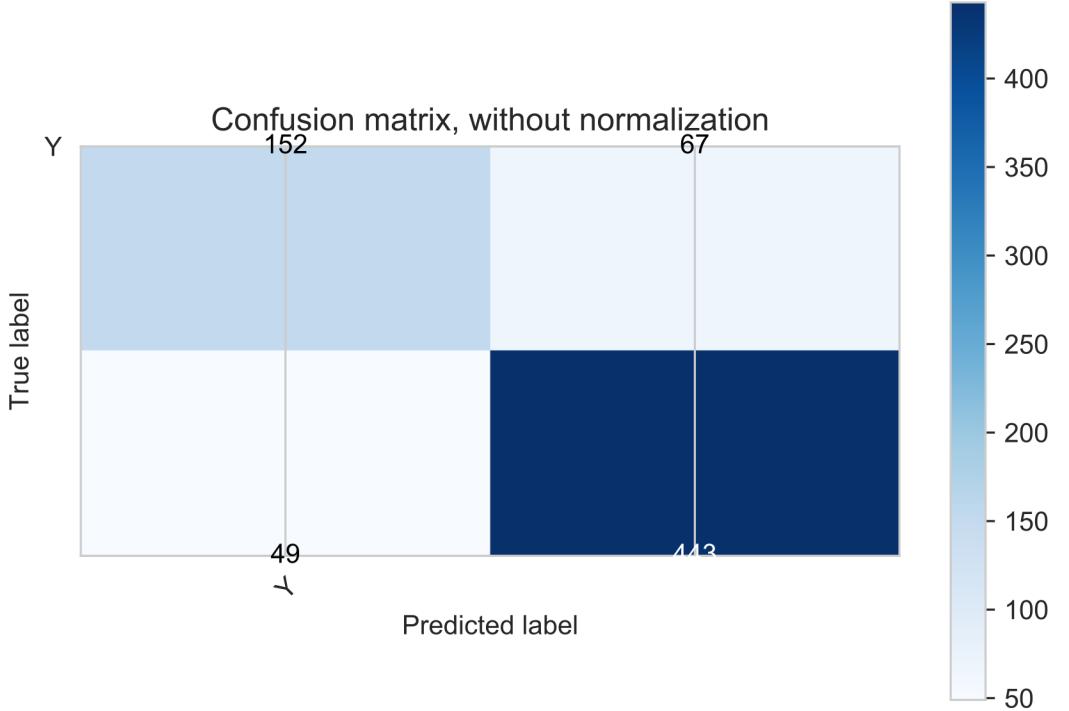
# Model Results



DIFFERENCE between Coefficients for Logit and Logit with CV Models



# Confusion Matrix



# Reading Score Norms

2015 READING Student Status Norms						
	Begin-Year		Mid-Year		End-Year	
Grade	Mean	SD	Mean	SD	Mean	SD
K	141.0	13.54	151.3	12.73	158.1	12.85
1	160.7	13.08	171.5	13.54	177.5	14.54
2	174.7	15.52	184.2	14.98	188.7	15.21
3	188.3	15.85	195.6	15.14	198.6	15.10
4	198.2	15.53	203.6	14.96	205.9	14.92
5	205.7	15.13	209.8	14.65	211.8	14.72
6	211.0	14.94	214.2	14.53	215.8	14.66
7	214.4	15.31	216.9	14.98	218.2	15.14
8	217.2	15.72	219.1	15.37	220.1	15.73
9	220.2	15.68	221.3	15.54	221.9	16.21
10	220.4	16.85	221.0	16.70	221.2	17.48
11	222.6	16.75	222.7	16.53	222.3	17.68

