COLORADO
Department of Education

Technical Advisory Panel Meeting

November 30, 2018

Technical Advisory Panel

- Welcome!
- Introductions

HB18-1355 Rulemaking

Ashley Piche

Break

COLORADO
Department of Education

Growth-to-Standard: Update

Marie Huchton, Accountability & Data Analysis

November 30, 2018

Topics to Cover

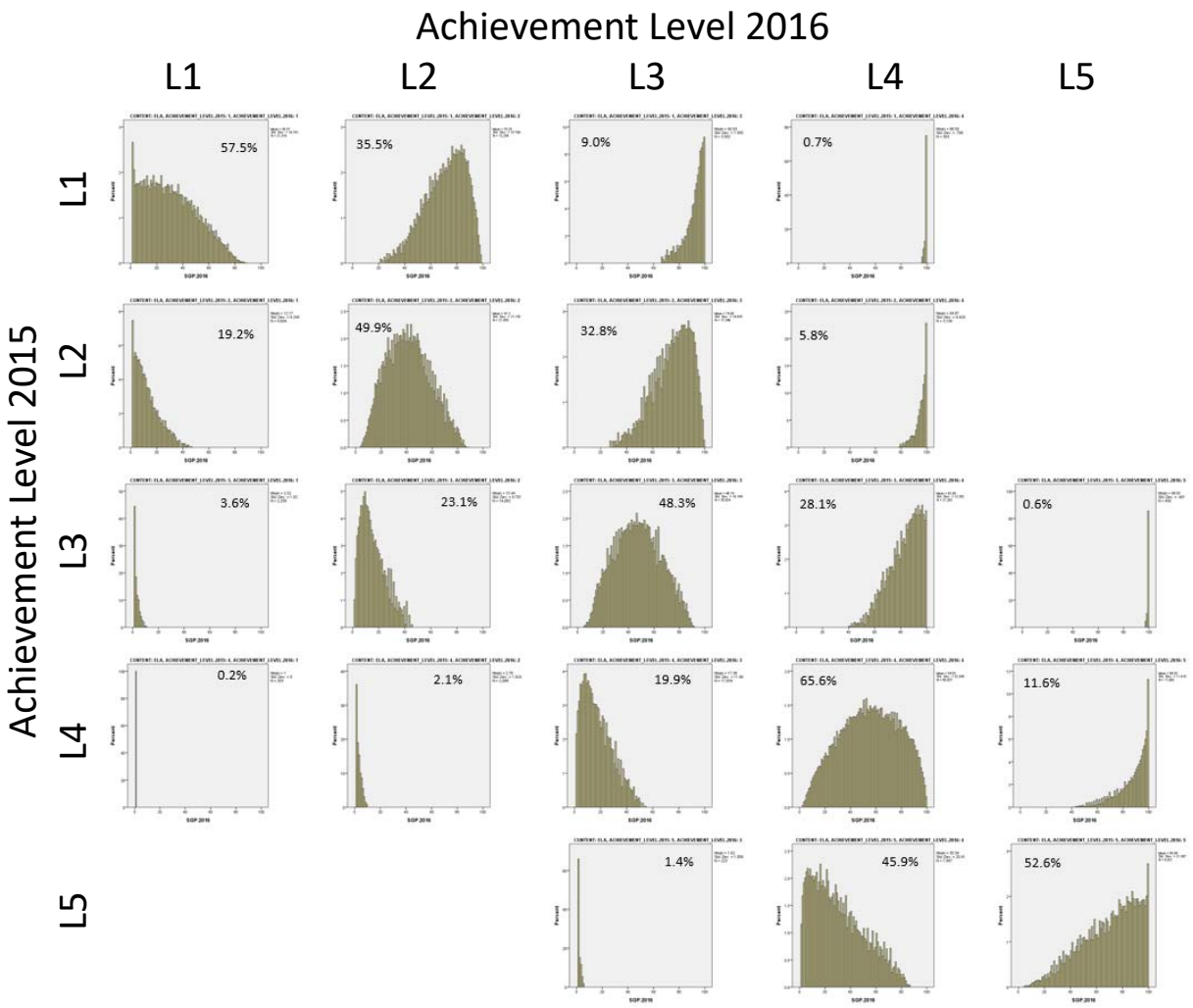
- SGP Distributions for Observed Achievement Level Trajectories with Percentages
- Hypothetical 2016 On Track Prediction Outcomes

SGP Distributions for Observed Achievement Level Trajectories with Percentages

Observed Achievement Level T

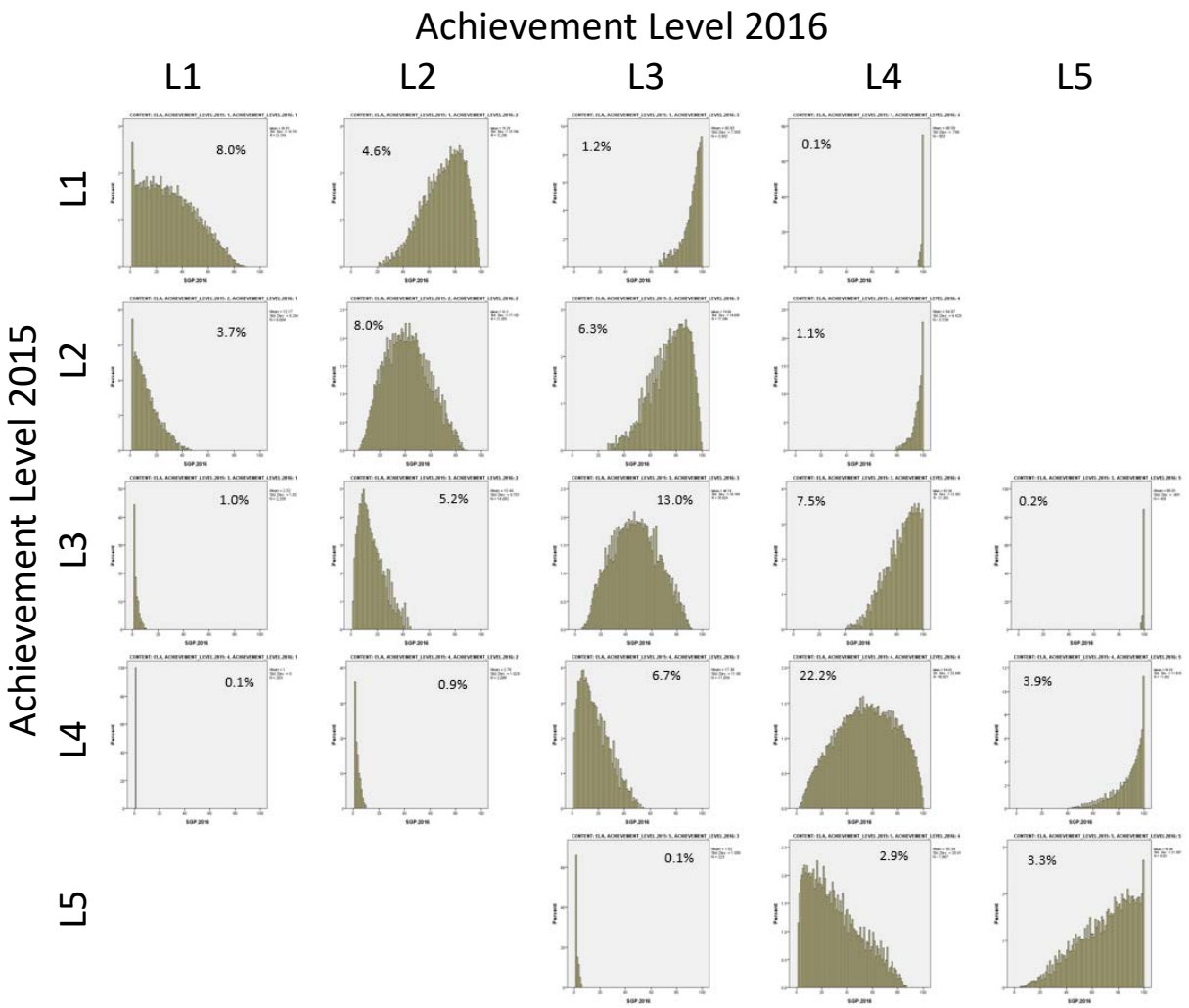
- Eligible for inclusion in the following analyses were students in grades 3-8 with typical grade progressions and CMAS scores in two or more consecutive years
- Based on requests from last meeting, added the percent of students within the achievement level cohort to each graphic.
- In each spreadsheet, created an additional copy of the distributions and labeled each graphic with the percent of students out of the entire starting population (not by achievement level cohort).

2016 SGP Results and Relations
Achievement Trajectories- ELA



For the All Students group combining across grades in ELA, moving either up or down one or more achievement levels requires significantly higher (or lower) than average growth. Students with typical growth tend to stay at the same achievement level from one year to the next (notable exception for level 5)

2016 SGP Results and Relations
Achievement Trajectories- ELA



For the All Students group combining across grades in ELA, moving either up or down one or more achievement levels requires significantly higher (or lower) than average growth. Students with typical growth tend to stay at the same achievement level from one year to the next (notable exception for level 5)

Hypothetical 2016 On Track Prediction Outcomes

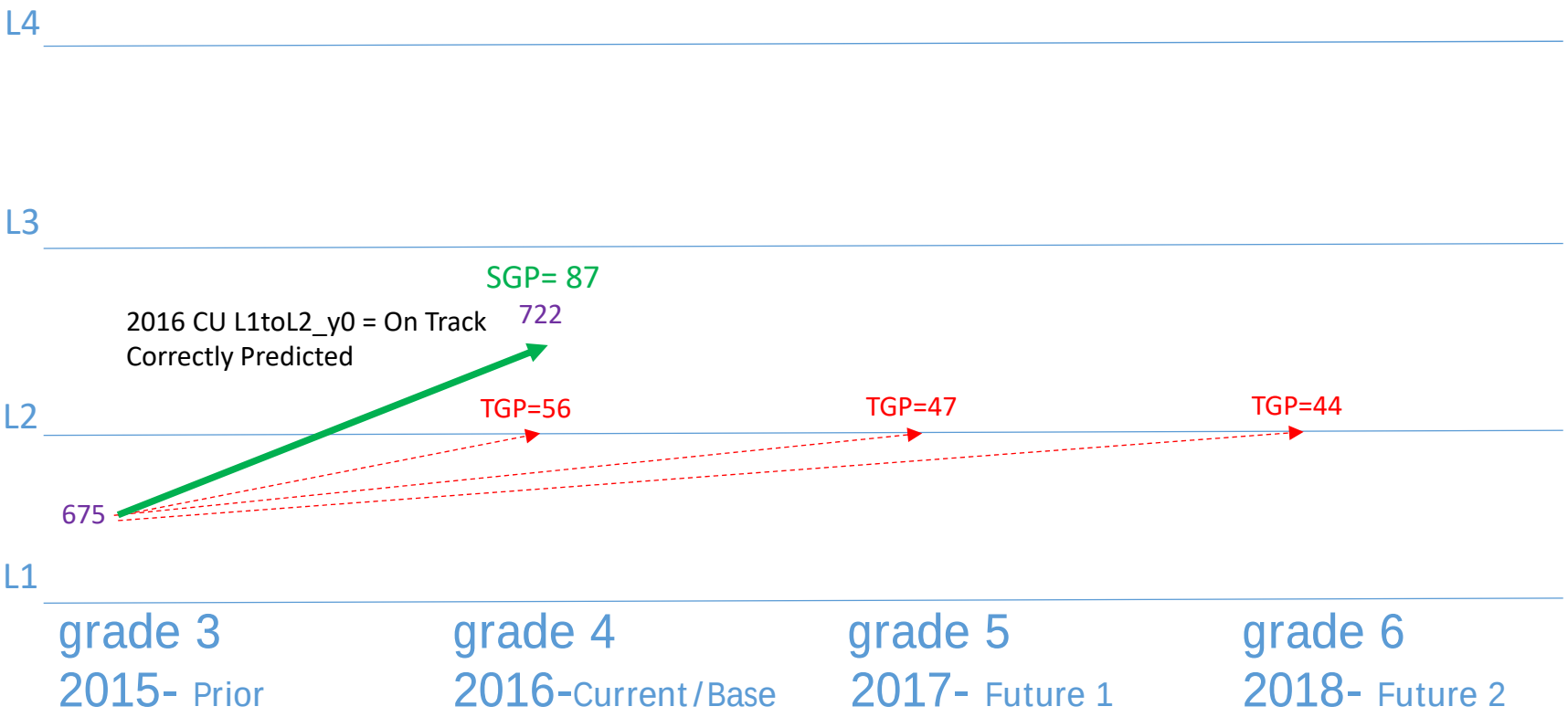
Hypothetical 2016 On Track Pr
3 Scenarios for Setting Target G

Within a stepping-stone model there are different possibilities for setting individual target student growth percentiles and on track predictions in the baseline year and then subsequent years and then tracking whether the predicted outcomes were correct. Using 2016 as the baseline year and tracking through the 2018 outcomes, these three target scenarios were explored:

- Maintain Initial 2016 Targets
- Maintain Initial 2016 Targets Until Attained, then Reset
- Reset Targets Every Year

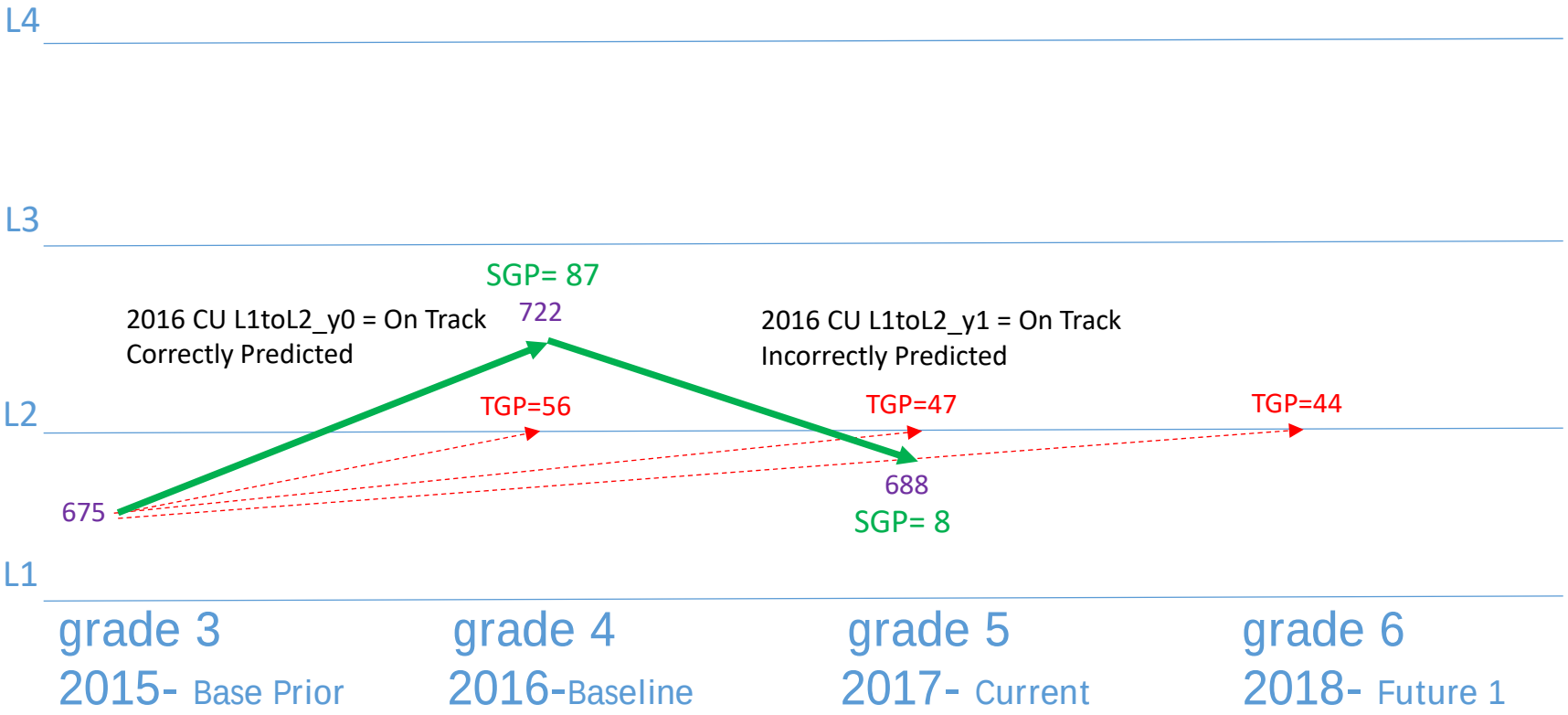
On Track Up Prediction Outco Maintaining Initial 2016 Targe

The year 0 projection is always 100% accurate because we already know what happened between the prior and current year.



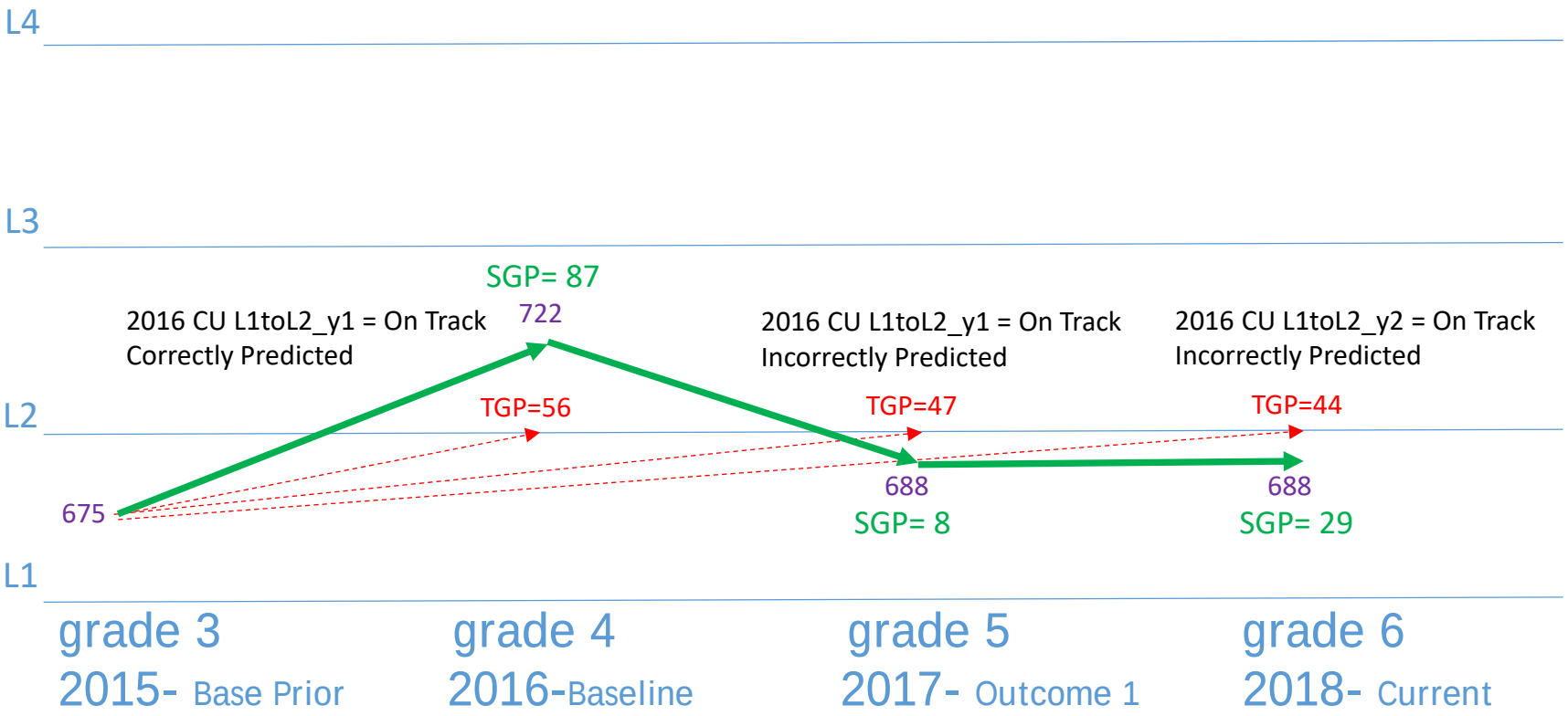
On Track Prediction Outcomes Maintaining Initial 2016 Targe

If we maintain the 2016 trajectory and target growth percentiles (TGPs) and compare these against 2017 outcomes, our predictive accuracy goes down, averaging 82.3% for ELA and 82.7% for Math, combining Catch Up and Keep Up across Elementary grades.



On Track Prediction Outcomes Maintaining Initial 2016 Targe

Comparing the 2016 trajectory and TGPs against the 2018 outcomes reduces the accuracy of our On Track predictions a little bit more, averaging 75.2% for ELA and 76.1% for Math combining Catch Up and Keep Up across Elementary grades.



On Track Up Prediction Outco
Maintaining Initial 2016 Targe

EMH .2015	CONTENT	ACH LVL. 2015 & Target	2016 On Track in 1 Year										Total Pct Ach Lvl Cohort Correct Pred
			Not On Track					On Track					
			Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	
E	ELA	L1toL2+ CU	10,256	45.6%	6,890	67.2%	30.6%	12,253	54.4%	11,345	92.6%	50.4%	81.0%
E	ELA	L2toL3+ CU	16,390	52.3%	11,756	71.7%	37.5%	14,970	47.7%	13,928	93.0%	44.4%	81.9%
E	ELA	L3toL4+ CU	27,413	62.1%	21,443	78.2%	48.6%	16,751	37.9%	14,549	86.9%	32.9%	81.5%
E	ELA	L4toL4+ KU	21,029	35.8%	14,642	69.6%	24.9%	37,769	64.2%	33,938	89.9%	57.7%	82.6%
E	ELA	L5toL4+ KU	1,231	14.8%	169	13.7%	2.0%	7,099	85.2%	7,045	99.2%	84.6%	86.6%
E	ELA	All Catch Up	54,059	55.1%	40,089	74.2%	40.9%	43,974	44.9%	39,822	90.6%	40.6%	81.5%
E	ELA	All Keep Up	22,260	33.2%	14,811	66.5%	22.1%	44,868	66.8%	40,983	91.3%	61.1%	83.1%
E	MATH	L1toL2+ CU	10,879	50.6%	7,602	69.9%	35.4%	10,609	49.4%	9,040	85.2%	42.1%	77.4%
E	MATH	L2toL3+ CU	24,790	59.7%	20,318	82.0%	48.9%	16,732	40.3%	13,695	81.8%	33.0%	81.9%
E	MATH	L3toL4+ CU	32,604	68.2%	29,186	89.5%	61.0%	15,207	31.8%	11,776	77.4%	24.6%	85.7%
E	MATH	L4toL4+ KU	17,500	36.1%	13,080	74.7%	27.0%	30,989	63.9%	26,488	85.5%	54.6%	81.6%
E	MATH	L5toL4+ KU	631	9.3%	90	14.3%	1.3%	6,123	90.7%	6,085	99.4%	90.1%	91.4%
E	MATH	All Catch Up	68,273	61.6%	57,106	83.6%	51.5%	42,548	38.4%	34,511	81.1%	31.1%	82.7%
E	MATH	All Keep Up	18,131	32.8%	13,170	72.6%	23.8%	37,112	67.2%	32,573	87.8%	59.0%	82.8%
M	ELA	L1toL2+ CU	2,577	53.3%	1,978	76.8%	40.9%	2,254	46.7%	1,761	78.1%	36.5%	77.4%
M	ELA	L2toL3+ CU	4,399	56.1%	3,412	77.6%	43.5%	3,441	43.9%	2,861	83.1%	36.5%	80.0%
M	ELA	L3toL4+ CU	6,926	59.7%	5,424	78.3%	46.8%	4,675	40.3%	3,996	85.5%	34.4%	81.2%
M	ELA	L4toL4+ KU	3,814	31.1%	2,580	67.6%	21.1%	8,432	68.9%	7,707	91.4%	62.9%	84.0%
M	ELA	L5toL4+ KU	165	7.9%	16	9.7%	0.8%	1,917	92.1%	1,912	99.7%	91.8%	92.6%
M	ELA	All Catch Up	13,902	57.3%	10,814	77.8%	44.6%	10,370	42.7%	8,618	83.1%	35.5%	80.1%
M	ELA	All Keep Up	3,979	27.8%	2,596	65.2%	18.1%	10,349	72.2%	9,619	92.9%	67.1%	85.3%
M	MATH	L1toL2+ CU	2,861	54.9%	2,433	85.0%	46.7%	2,354	45.1%	2,327	98.9%	44.6%	91.3%
M	MATH	L2toL3+ CU	6,853	66.5%	5,874	85.7%	57.0%	3,451	33.5%	3,057	88.6%	29.7%	86.7%
M	MATH	L3toL4+ CU	7,547	68.5%	6,390	84.7%	58.0%	3,475	31.5%	2,298	66.1%	20.8%	78.8%
M	MATH	L4toL4+ KU	3,115	33.2%	2,521	80.9%	26.9%	6,259	66.8%	5,567	88.9%	59.4%	86.3%
M	MATH	L5toL4+ KU	42	5.5%	7	16.7%	0.9%	720	94.5%	715	99.3%	93.8%	94.8%
M	MATH	All Catch Up	17,261	65.0%	14,697	85.1%	55.4%	9,280	35.0%	7,682	82.8%	28.9%	84.3%
M	MATH	All Keep Up	3,157	31.1%	2,528	80.1%	24.9%	6,979	68.9%	6,282	90.0%	62.0%	86.9%

On Track Prediction Outcomes Maintaining Initial 2016 Targe

EMH .2015	CONTENT	ACH LVL. 2015 & Target	2016 On Track in 2 Years										Total Pct Ach Lvl Cohort Correct Pred
			Not On Track					On Track					
			Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	
E	ELA	L1toL2+ CU	8,608	42.5%	4,242	49.3%	20.9%	11,665	57.5%	10,913	93.6%	53.8%	74.8%
E	ELA	L2toL3+ CU	13,424	48.3%	7,485	55.8%	26.9%	14,359	51.7%	13,309	92.7%	47.9%	74.8%
E	ELA	L3toL4+ CU	22,158	57.5%	14,226	64.2%	36.9%	16,355	42.5%	14,115	86.3%	36.6%	73.6%
E	ELA	L4toL4+ KU	21,050	41.0%	14,050	66.7%	27.4%	30,283	59.0%	25,030	82.7%	48.8%	76.1%
E	ELA	L5toL4+ KU	1,784	25.0%	201	11.3%	2.8%	5,364	75.0%	5,283	98.5%	73.9%	76.7%
E	ELA	All Catch Up	44,190	51.0%	25,953	58.7%	30.0%	42,379	49.0%	38,337	90.5%	44.3%	74.3%
E	ELA	All Keep Up	22,834	39.0%	14,251	62.4%	24.4%	35,647	61.0%	30,313	85.0%	51.8%	76.2%
E	MATH	L1toL2+ CU	8,720	46.1%	4,420	50.7%	23.4%	10,206	53.9%	8,822	86.4%	46.6%	70.0%
E	MATH	L2toL3+ CU	20,533	56.3%	14,569	71.0%	39.9%	15,966	43.7%	13,189	82.6%	36.1%	76.1%
E	MATH	L3toL4+ CU	26,536	63.3%	21,541	81.2%	51.4%	15,392	36.7%	11,644	75.6%	27.8%	79.1%
E	MATH	L4toL4+ KU	17,876	41.8%	12,933	72.3%	30.3%	24,845	58.2%	19,189	77.2%	44.9%	75.2%
E	MATH	L5toL4+ KU	1,178	19.3%	125	10.6%	2.0%	4,929	80.7%	4,874	98.9%	79.8%	81.9%
E	MATH	All Catch Up	55,789	57.3%	40,530	72.6%	41.6%	41,564	42.7%	33,655	81.0%	34.6%	76.2%
E	MATH	All Keep Up	19,054	39.0%	13,058	68.5%	26.7%	29,774	61.0%	24,063	80.8%	49.3%	76.0%

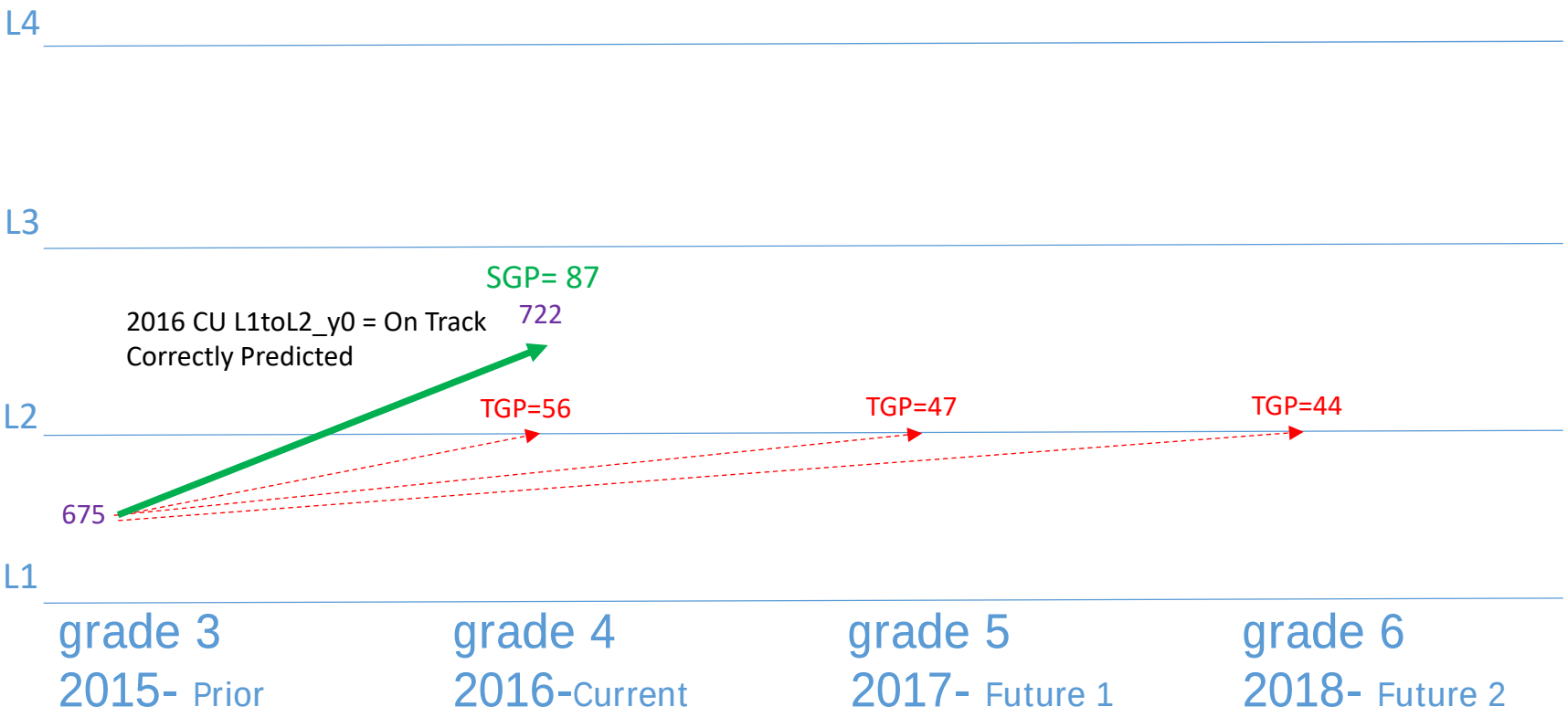
On Track Prediction Outcomes Maintaining Initial 2016 Targe

Pros	Cons	Considerations
- Conceptually simple, single baseline for each child - Explicitly tracks whether students have attained target within given timeframe - Aligns with current thinking for ELP On Track methodology	- Doesn't allow for trajectories to reset if students attain next level of performance - Schools potentially held responsible for student target trajectories established at previous schools	- More appropriate if we were using single at-benchmark target, rather than stepping-stone approach - At some point would need to reset even if student still hadn't made progress

Reflection Time

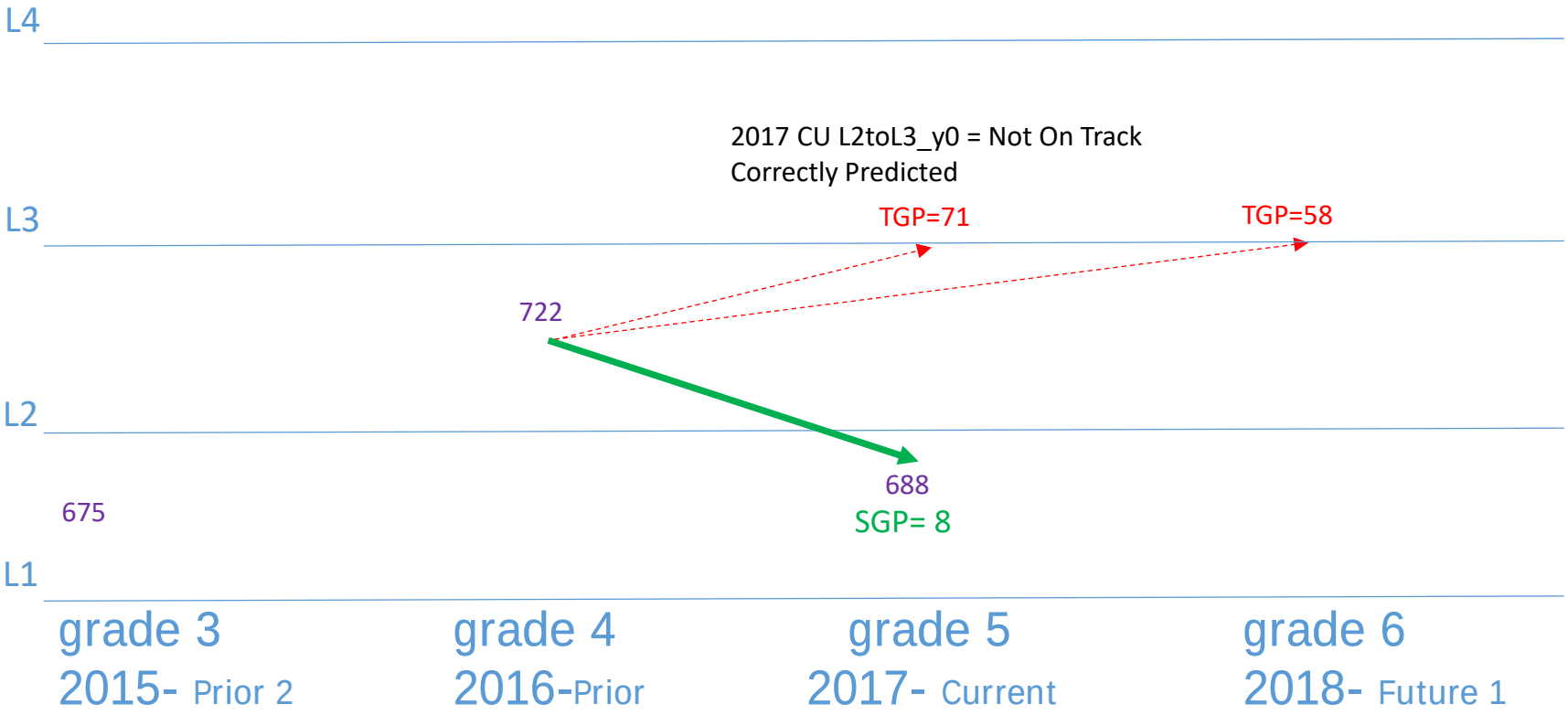
On Track Prediction Outcomes
2016 Targets Until Attained, th

Again, using the year 0 TGP is always 100% accurate because we know what actually happened between the prior and current year.



On Track Prediction Outcomes
2016 Targets Until Attained, th

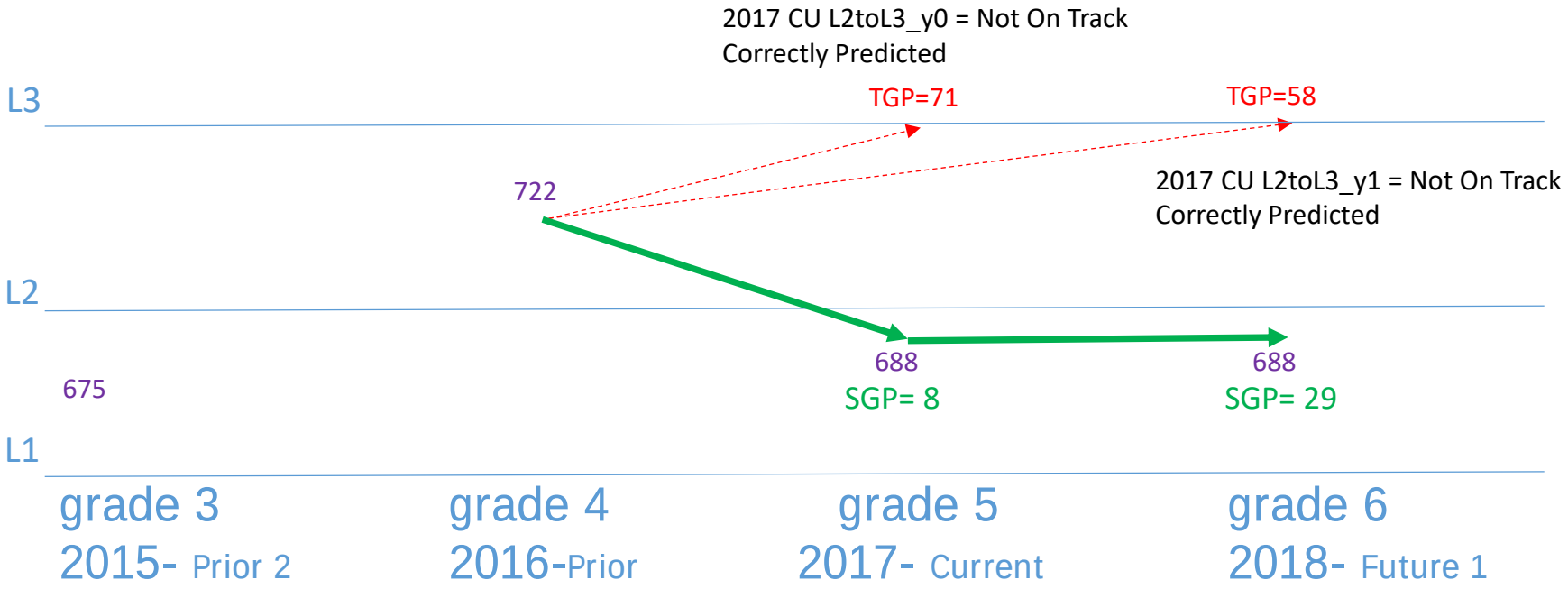
Students scoring at or below the same proficiency level in 2015 and 2016 maintain their 2016 TGPs, while students moving up 1+ PLs have their targets reset to their 2017 TGPs. Looking at the 2017 outcomes, our predictive accuracy drops significantly, averaging 64.7% for ELA and 70.4% for Math, combining Catch Up and Keep Up across Elementary grades.



On Track Prediction Outcomes
2016 Targets Until Attained, th

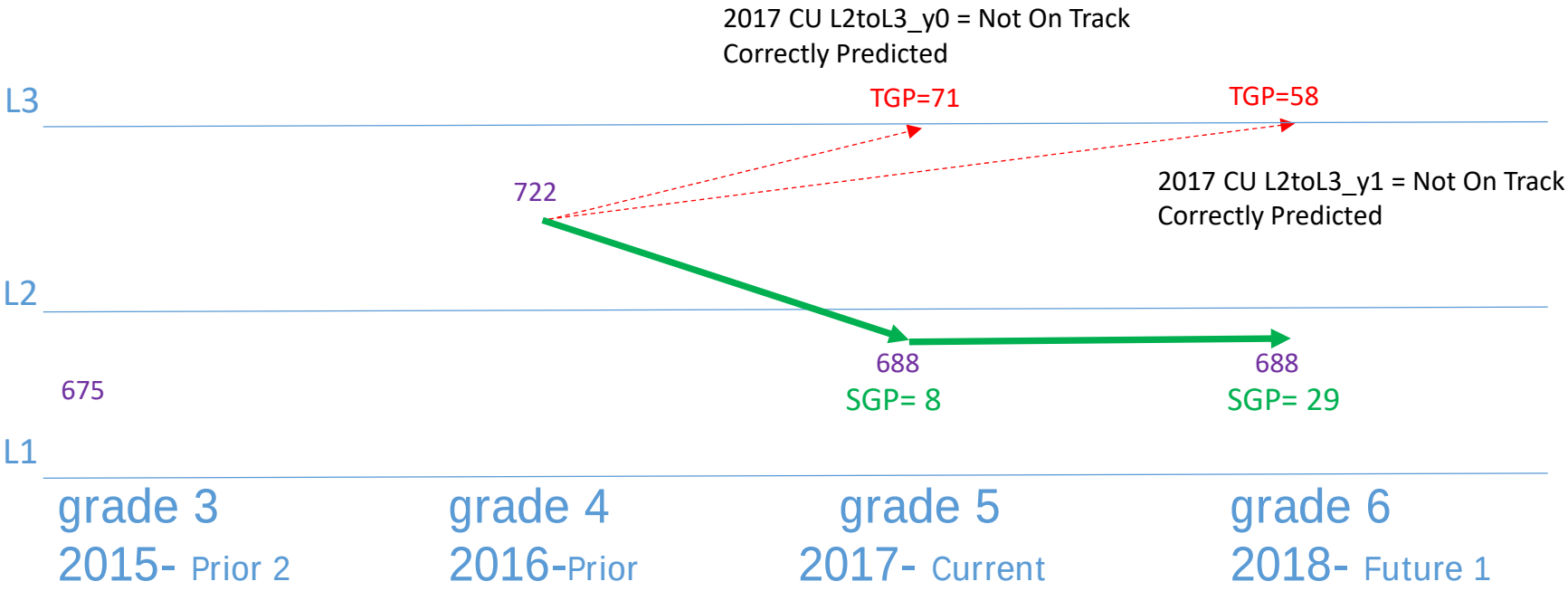
There are now four possible combinations of student proficiency trajectories-

1. No movement from 15 to 16, or 16 to 17 – use 2016 TGP
2. No movement from 15 to 16, upward movement from 16 to 17- use 2018 TGP
3. Upward movement from 15 to 16, no movement from 16 to 17- use 2017 TGP
4. Upward movement from 15 to 16 and 16 to 17- use 2018 TGP



On Track Prediction Outcomes
2016 Targets Until Attained, th

Looking at the 2018 outcomes across all the possible trajectories, our predictive accuracy drops further, averaging 60.0% for ELA and 58.9% for Math, combining Catch Up and Keep Up across Elementary grades.



On Track Prediction Outcomes
2016 Targets Until Attained, th

EMH .2015	CONTENT	ACH LVL. 2015 & Target	2016 On Track in 1 Year										Total Pct Ach Lvl Cohort Correct Pred
			Not On Track					On Track					
			Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	
E	ELA	L1toL2+ CU	19,113	84.8%	6,890	36.0%	30.6%	3,434	15.2%	2,526	73.6%	11.2%	41.8%
E	ELA	L2toL3+ CU	21,844	83.1%	7,355	33.7%	28.0%	4,435	16.9%	3,393	76.5%	12.9%	40.9%
E	ELA	L3toL4+ CU	23,023	66.2%	12,950	56.2%	37.2%	11,768	33.8%	9,630	81.8%	27.7%	64.9%
E	ELA	L4toL4+ KU	8,339	18.1%	1,876	22.5%	4.1%	37,692	81.9%	33,937	90.0%	73.7%	77.8%
E	ELA	L5toL4+ KU	1	0.1%	0	0.0%	0.0%	1,037	99.9%	1,036	99.9%	99.8%	99.8%
E	ELA	All Catch Up	63,980	76.5%	27,195	42.5%	32.5%	19,637	23.5%	15,549	79.2%	18.6%	51.1%
E	ELA	All Keep Up	8,340	17.7%	1,876	22.5%	4.0%	38,729	82.3%	34,973	90.3%	74.3%	78.3%
E	MATH	L1toL2+ CU	10,551	69.1%	2	0.0%	0.0%	4,721	30.9%	1,839	39.0%	12.0%	12.1%
E	MATH	L2toL3+ CU	27,931	83.5%	12,770	45.7%	38.2%	5,537	16.5%	2,500	45.2%	7.5%	45.6%
E	MATH	L3toL4+ CU	25,763	72.3%	17,790	69.1%	50.0%	9,849	27.7%	6,418	65.2%	18.0%	68.0%
E	MATH	L4toL4+ KU	171	0.5%	1,870	1093.6%	6.0%	30,948	99.5%	26,476	85.5%	85.1%	91.1%
E	MATH	L5toL4+ KU	0	0.0%	0	-	0.0%	3,150	100.0%	3,144	99.8%	99.8%	99.8%
E	MATH	All Catch Up	64,245	76.2%	30,562	47.6%	36.2%	20,107	23.8%	10,757	53.5%	12.8%	49.0%
E	MATH	All Keep Up	171	0.5%	1,870	1093.6%	5.5%	34,098	99.5%	29,620	86.9%	86.4%	91.9%
M	ELA	L1toL2+ CU	3,860	79.1%	1,978	51.2%	40.5%	1,018	20.9%	525	51.6%	10.8%	51.3%
M	ELA	L2toL3+ CU	4,638	77.3%	1,763	38.0%	29.4%	1,361	22.7%	781	57.4%	13.0%	42.4%
M	ELA	L3toL4+ CU	5,493	61.6%	2,989	54.4%	33.5%	3,431	38.4%	2,752	80.2%	30.8%	64.3%
M	ELA	L4toL4+ KU	1,579	15.8%	306	19.4%	3.1%	8,392	84.2%	7,706	91.8%	77.3%	80.4%
M	ELA	L5toL4+ KU	0	0.0%	0	-	0.0%	1,673	100.0%	1,671	99.9%	99.9%	99.9%
M	ELA	All Catch Up	13,991	70.7%	6,730	48.1%	34.0%	5,810	29.3%	4,058	69.8%	20.5%	54.5%
M	ELA	All Keep Up	1,579	13.6%	306	19.4%	2.6%	10,065	86.4%	9,377	93.2%	80.5%	83.2%
M	MATH	L1toL2+ CU	5,115	97.6%	2,433	47.6%	46.4%	127	2.4%	100	78.7%	1.9%	48.3%
M	MATH	L2toL3+ CU	7,976	91.6%	4,363	54.7%	50.1%	728	8.4%	334	45.9%	3.8%	54.0%
M	MATH	L3toL4+ CU	5,224	65.5%	4,183	80.1%	52.5%	2,751	34.5%	1,574	57.2%	19.7%	72.2%
M	MATH	L4toL4+ KU	737	10.6%	142	19.3%	2.0%	6,224	89.4%	5,534	88.9%	79.5%	81.5%
M	MATH	L5toL4+ KU	0	0.0%	0	-	0.0%	398	100.0%	398	100.0%	100.0%	100.0%
M	MATH	All Catch Up	18,315	83.6%	10,979	59.9%	50.1%	3,606	16.4%	2,008	55.7%	9.2%	59.2%
M	MATH	All Keep Up	737	10.0%	142	19.3%	1.9%	6,622	90.0%	5,932	89.6%	80.6%	82.5%

On Track Prediction Outcomes
2016 Targets Until Attained, th

EMH .2015	CONTENT	ACH LVL. 2015 & Target	2016 On Track in 2 Years										Total Pct Ach Lvl Cohort Correct Pred
			Not On Track					On Track					
			Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	
E	ELA	L1toL2+ CU	17,192	84.5%	4,242	24.7%	20.8%	3,158	15.5%	2,406	76.2%	11.8%	32.7%
E	ELA	L2toL3+ CU	17,087	79.4%	2,943	17.2%	13.7%	4,428	20.6%	3,717	83.9%	17.3%	31.0%
E	ELA	L3toL4+ CU	14,587	53.8%	5,280	36.2%	19.5%	12,520	46.2%	10,973	87.6%	40.5%	60.0%
E	ELA	L4toL4+ KU	7,753	21.8%	1,290	16.6%	3.6%	27,868	78.2%	25,659	92.1%	72.0%	75.7%
E	ELA	L5toL4+ KU	16	0.7%	0	0.0%	0.0%	2,390	99.3%	2,384	99.7%	99.1%	99.1%
E	ELA	All Catch Up	48,866	70.8%	12,465	25.5%	18.1%	20,106	29.2%	17,096	85.0%	24.8%	42.9%
E	ELA	All Keep Up	7,769	20.4%	1,290	16.6%	3.4%	30,258	79.6%	28,043	92.7%	73.7%	77.1%
E	MATH	L1toL2+ CU	15,376	84.0%	4,420	28.7%	24.2%	2,925	16.0%	1,541	52.7%	8.4%	32.6%
E	MATH	L2toL3+ CU	21,174	81.7%	5,967	28.2%	23.0%	4,752	18.3%	2,609	54.9%	10.1%	33.1%
E	MATH	L3toL4+ CU	16,793	62.6%	8,233	49.0%	30.7%	10,046	37.4%	7,164	71.3%	26.7%	57.4%
E	MATH	L4toL4+ KU	5,925	21.9%	1,101	18.6%	4.1%	21,158	78.1%	18,943	89.5%	69.9%	74.0%
E	MATH	L5toL4+ KU	5	0.3%	0	0.0%	0.0%	1,894	99.7%	1,893	99.9%	99.7%	99.7%
E	MATH	All Catch Up	53,343	75.1%	18,620	34.9%	26.2%	17,723	24.9%	11,314	63.8%	15.9%	42.1%
E	MATH	All Keep Up	5,930	20.5%	1,101	18.6%	3.8%	23,052	79.5%	20,836	90.4%	71.9%	75.7%

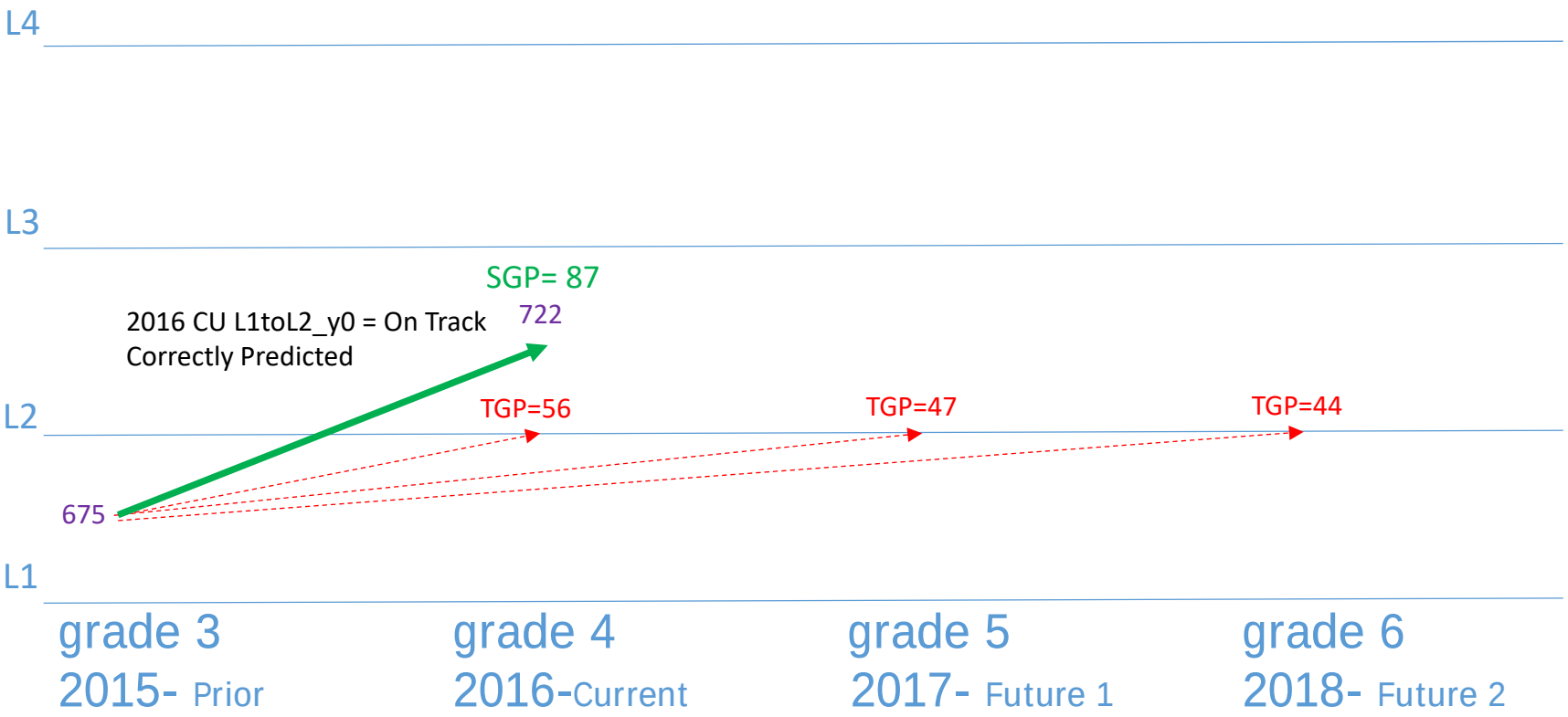
On Track Prediction Outcomes
2016 Targets Until Attained, th

Pros	Cons	Considerations
- Explicitly tracks whether students have attained target within given timeframe - Recognizes upward movement and resets targets to achieve next performance level within new time frame	- Calculationally most complex, having to keep track of original as well as reset trajectories - Inconsistent baseline target years- students not moving between levels would maintain their original targets forever, while other students making progress would have updated targets every year - Schools potentially held responsible for student target trajectories established at previous schools	- Targets based on more prior years of data are more precise - Assumes upward movement learning progression

Reflection Time

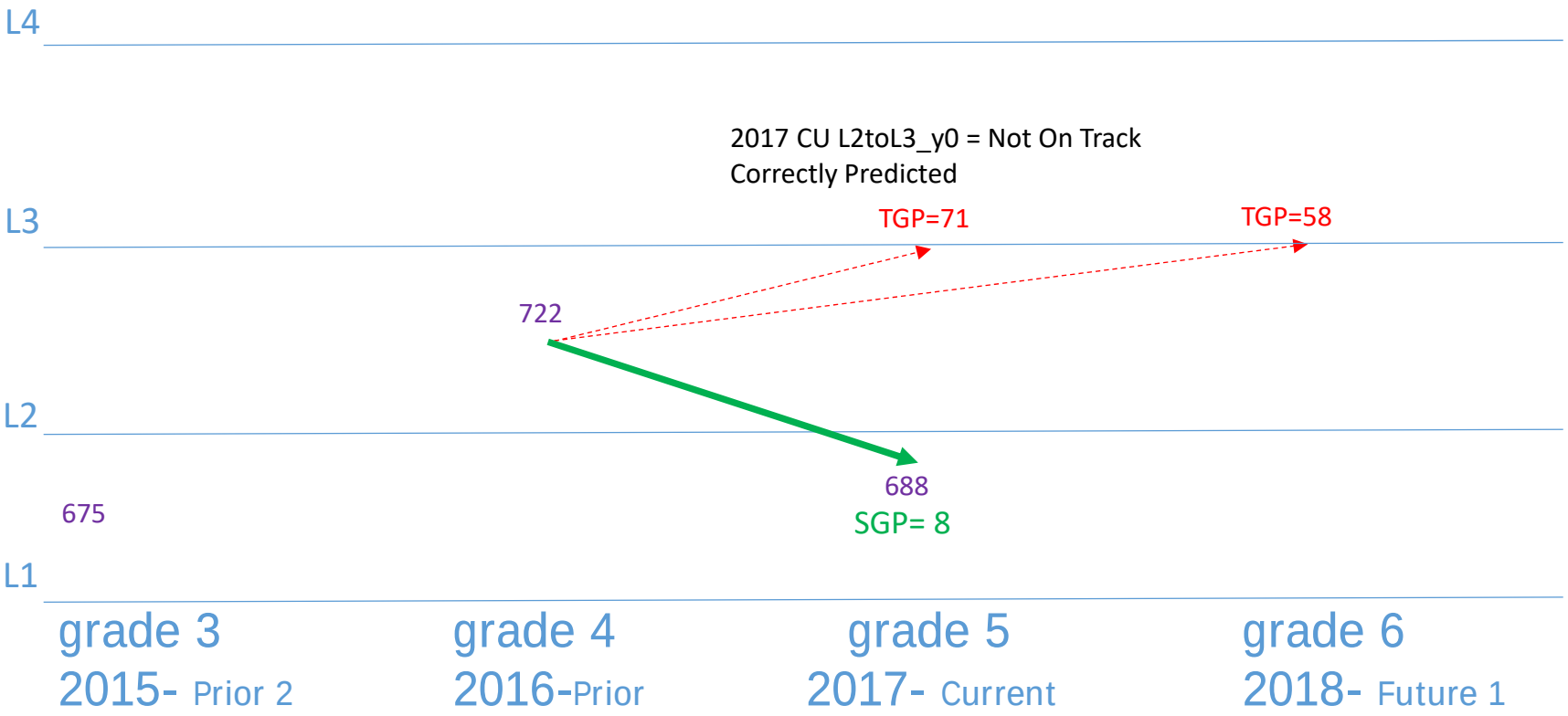
On Track Prediction Outcomes
2016 Targets Until Attained, th

Again, using the year 0 TGP is always 100% accurate because we know what actually happened between the prior and current year.



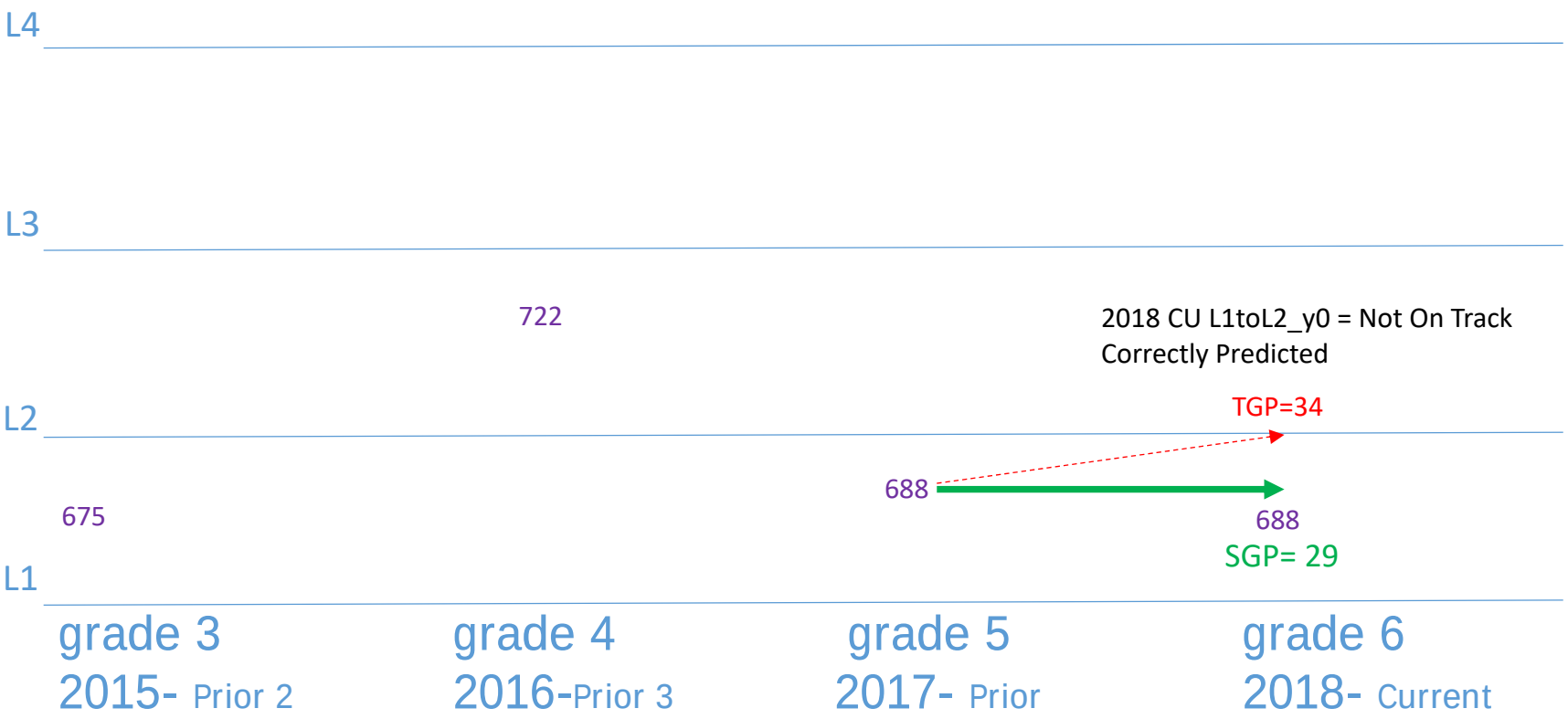
On Track Prediction Outcomes: Reset Targets Every Year

Since the targets reset each year, our predictions will always be 100% accurate because the slate of prior target expectations and timelines is wiped clean each year.



On Track Prediction Outcomes
Reset Targets Every Year

Since the targets reset each year, our predictions will always be 100% accurate because the slate of prior target expectations and timelines is wiped clean each year.



On Track Prediction Outcomes
Reset Targets Every Year

EMH .2015	CONTENT	ACH LVL. 2016 & Target	2016 On Track in 1 Year										Total Pct Ach Lvl Cohort Correct Pred
			Not On Track					On Track					
			Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	
E	ELA	L1toL2+ CU	10,285	57.3%	10,285	100.0%	57.3%	7,676	42.7%	7,676	100.0%	42.7%	100.0%
E	ELA	L2toL3+ CU	18,837	62.3%	18,837	100.0%	62.3%	11,388	37.7%	11,388	100.0%	37.7%	100.0%
E	ELA	L3toL4+ CU	32,402	69.1%	32,402	100.0%	69.1%	14,469	30.9%	14,469	100.0%	30.9%	100.0%
E	ELA	L4toL4+ KU	11,976	20.3%	11,976	100.0%	20.3%	46,912	79.7%	46,912	100.0%	79.7%	100.0%
E	ELA	L5toL4+ KU	97	0.9%	97	100.0%	0.9%	10,738	99.1%	10,738	100.0%	99.1%	100.0%
E	ELA	All Catch Up	61,524	64.7%	61,524	100.0%	64.7%	33,533	35.3%	33,533	100.0%	35.3%	100.0%
E	ELA	All Keep Up	12,073	17.3%	12,073	100.0%	17.3%	57,650	82.7%	57,650	100.0%	82.7%	100.0%
E	MATH	L1toL2+ CU	12,758	56.7%	12,758	100.0%	56.7%	9,748	43.3%	9,748	100.0%	43.3%	100.0%
E	MATH	L2toL3+ CU	28,072	70.1%	28,072	100.0%	70.1%	11,982	29.9%	11,982	100.0%	29.9%	100.0%
E	MATH	L3toL4+ CU	38,778	81.7%	38,778	100.0%	81.7%	8,674	18.3%	8,674	100.0%	18.3%	100.0%
E	MATH	L4toL4+ KU	12,449	25.2%	12,449	100.0%	25.2%	37,033	74.8%	37,033	100.0%	74.8%	100.0%
E	MATH	L5toL4+ KU	34	0.6%	34	100.0%	0.6%	5,937	99.4%	5,937	100.0%	99.4%	100.0%
E	MATH	All Catch Up	79,608	72.4%	79,608	100.0%	72.4%	30,404	27.6%	30,404	100.0%	27.6%	100.0%
E	MATH	All Keep Up	12,483	22.5%	12,483	100.0%	22.5%	42,970	77.5%	42,970	100.0%	77.5%	100.0%
M	ELA	L1toL2+ CU	12,758	85.6%	12,758	100.0%	85.6%	2,150	14.4%	2,150	100.0%	14.4%	100.0%
M	ELA	L2toL3+ CU	4,480	62.8%	4,480	100.0%	62.8%	2,651	37.2%	2,651	100.0%	37.2%	100.0%
M	ELA	L3toL4+ CU	6,736	69.1%	6,736	100.0%	69.1%	3,010	30.9%	3,010	100.0%	30.9%	100.0%
M	ELA	L4toL4+ KU	2,447	21.6%	2,447	100.0%	21.6%	8,905	78.4%	8,905	100.0%	78.4%	100.0%
M	ELA	L5toL4+ KU	59	1.3%	59	100.0%	1.3%	4,538	98.7%	4,538	100.0%	98.7%	100.0%
M	ELA	All Catch Up	23,974	75.4%	23,974	100.0%	75.4%	7,811	24.6%	7,811	100.0%	24.6%	100.0%
M	ELA	All Keep Up	2,506	15.7%	2,506	100.0%	15.7%	13,443	84.3%	13,443	100.0%	84.3%	100.0%
M	MATH	L1toL2+ CU	3,528	76.9%	3,528	100.0%	76.9%	1,059	23.1%	1,059	100.0%	23.1%	100.0%
M	MATH	L2toL3+ CU	8,100	79.9%	8,100	100.0%	79.9%	2,042	20.1%	2,042	100.0%	20.1%	100.0%
M	MATH	L3toL4+ CU	9,074	76.3%	9,074	100.0%	76.3%	2,813	23.7%	2,813	100.0%	23.7%	100.0%
M	MATH	L4toL4+ KU	1,424	17.9%	1,424	100.0%	17.9%	6,552	82.1%	6,552	100.0%	82.1%	100.0%
M	MATH	L5toL4+ KU	1	0.2%	1	100.0%	0.2%	622	99.8%	622	100.0%	99.8%	100.0%
M	MATH	All Catch Up	20,702	77.8%	20,702	100.0%	77.8%	5,914	22.2%	5,914	100.0%	22.2%	100.0%
M	MATH	All Keep Up	1,425	16.6%	1,425	100.0%	16.6%	7,174	83.4%	7,174	100.0%	83.4%	100.0%

On Track Prediction Outcomes
Reset Targets Every Year

EMH .2015	CONTENT	ACH LVL. 2017 & Target	2016 On Track in 2 Years										Total Pct Ach Lvl Cohort Correct Pred
			Not On Track					On Track					
			Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	Count	Pct of Ach Lvl Cohort	Cnt Correctly Predicted	Pct Correctly Predicted	Pct Ach Lvl Cohort Correct Pred	
E	ELA	L1toL2+ CU	9,036	59.6%	9,036	100.0%	59.6%	6,119	40.4%	6,119	100.0%	40.4%	100.0%
E	ELA	L2toL3+ CU	16,688	65.1%	16,688	100.0%	65.1%	8,932	34.9%	8,932	100.0%	34.9%	100.0%
E	ELA	L3toL4+ CU	27,601	71.2%	27,601	100.0%	71.2%	11,167	28.8%	11,167	100.0%	28.8%	100.0%
E	ELA	L4toL4+ KU	11,816	22.4%	11,816	100.0%	22.4%	40,938	77.6%	40,938	100.0%	77.6%	100.0%
E	ELA	L5toL4+ KU	160	1.3%	160	100.0%	1.3%	12,336	98.7%	12,336	100.0%	98.7%	100.0%
E	ELA	All Catch Up	53,325	67.0%	53,325	100.0%	67.0%	26,218	33.0%	26,218	100.0%	33.0%	100.0%
E	ELA	All Keep Up	11,976	18.4%	11,976	100.0%	18.4%	53,274	81.6%	53,274	100.0%	81.6%	100.0%
E	MATH	L1toL2+ CU	10,720	58.2%	10,720	100.0%	58.2%	7,705	41.8%	7,705	100.0%	41.8%	100.0%
E	MATH	L2toL3+ CU	26,108	73.3%	26,108	100.0%	73.3%	9,525	26.7%	9,525	100.0%	26.7%	100.0%
E	MATH	L3toL4+ CU	35,554	79.6%	35,554	100.0%	79.6%	9,101	20.4%	9,101	100.0%	20.4%	100.0%
E	MATH	L4toL4+ KU	8,735	22.9%	8,735	100.0%	22.9%	29,450	77.1%	29,450	100.0%	77.1%	100.0%
E	MATH	L5toL4+ KU	19	0.2%	19	100.0%	0.2%	12,336	99.8%	12,336	100.0%	99.8%	100.0%
E	MATH	All Catch Up	72,382	73.3%	72,382	100.0%	73.3%	26,331	26.7%	26,331	100.0%	26.7%	100.0%
E	MATH	All Keep Up	8,754	17.3%	8,754	100.0%	17.3%	41,786	82.7%	41,786	100.0%	82.7%	100.0%

On Track Prediction Outcomes: Reset Targets Every Year

Pros	Cons	Considerations
- Aligns with previous TCAP AGP methodology - Fairly simple to explain - Generous metric, giving credit both for students who have moved and those whose current growth, if sustained over time, would move up.	- Clock resets every year. Never checks that students actually made progress within allotted timeframe.	-

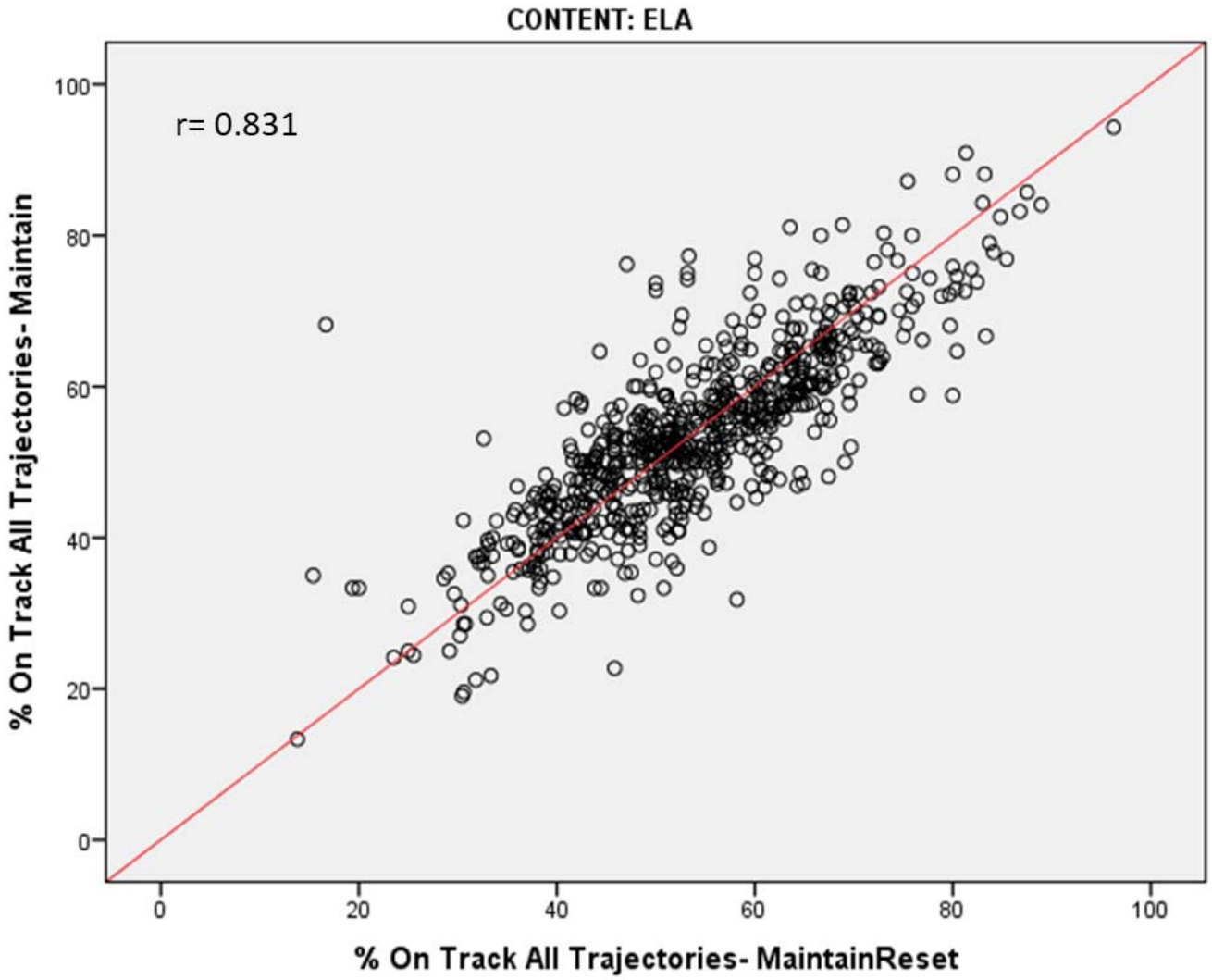
Reflection Time

Observed 2018 School Aggregations of 2016 2 Year On Track Target Scenarios

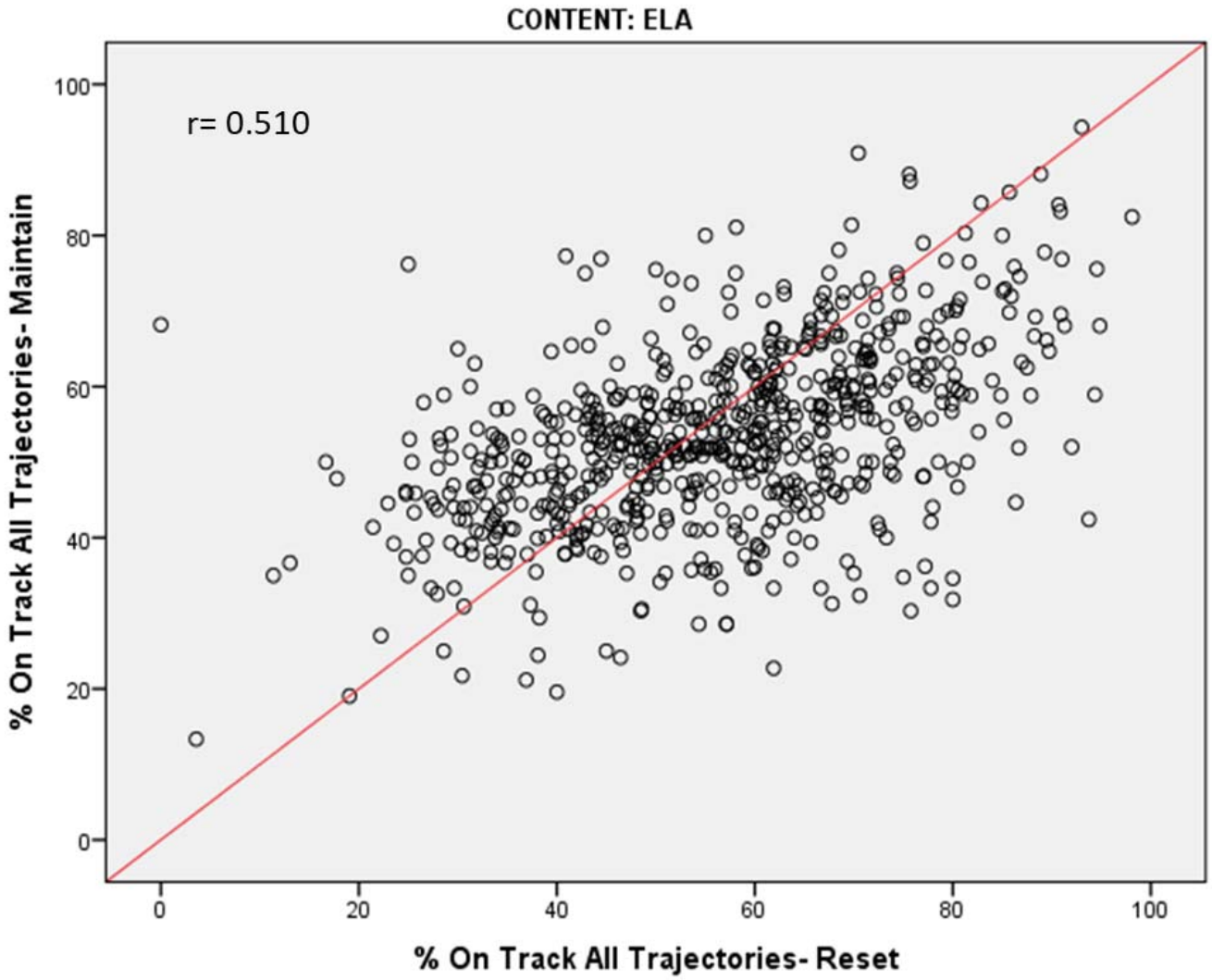
Observed 2018 School Aggrega
2016 2 Year On Track Targets

Aggregated by school the observed 2018 student On/Off Track flags for each of the above 2016 2 Year Target Scenarios then compared outcomes to see how different the inferences of average student performance become depending upon which target-setting methodology is used.

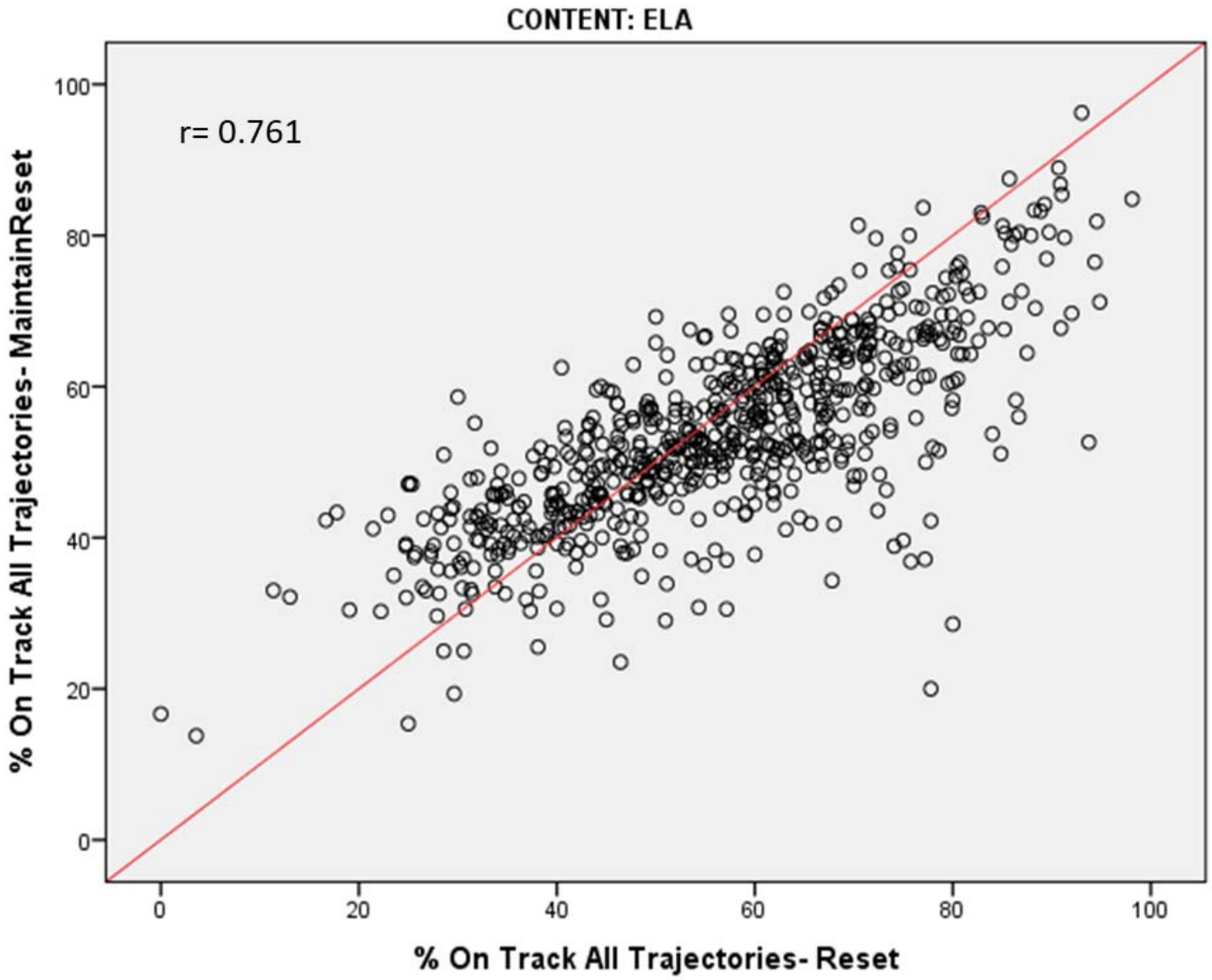
Comparison of 2018 School Ag
Track 2016 2 yr Target Scenari



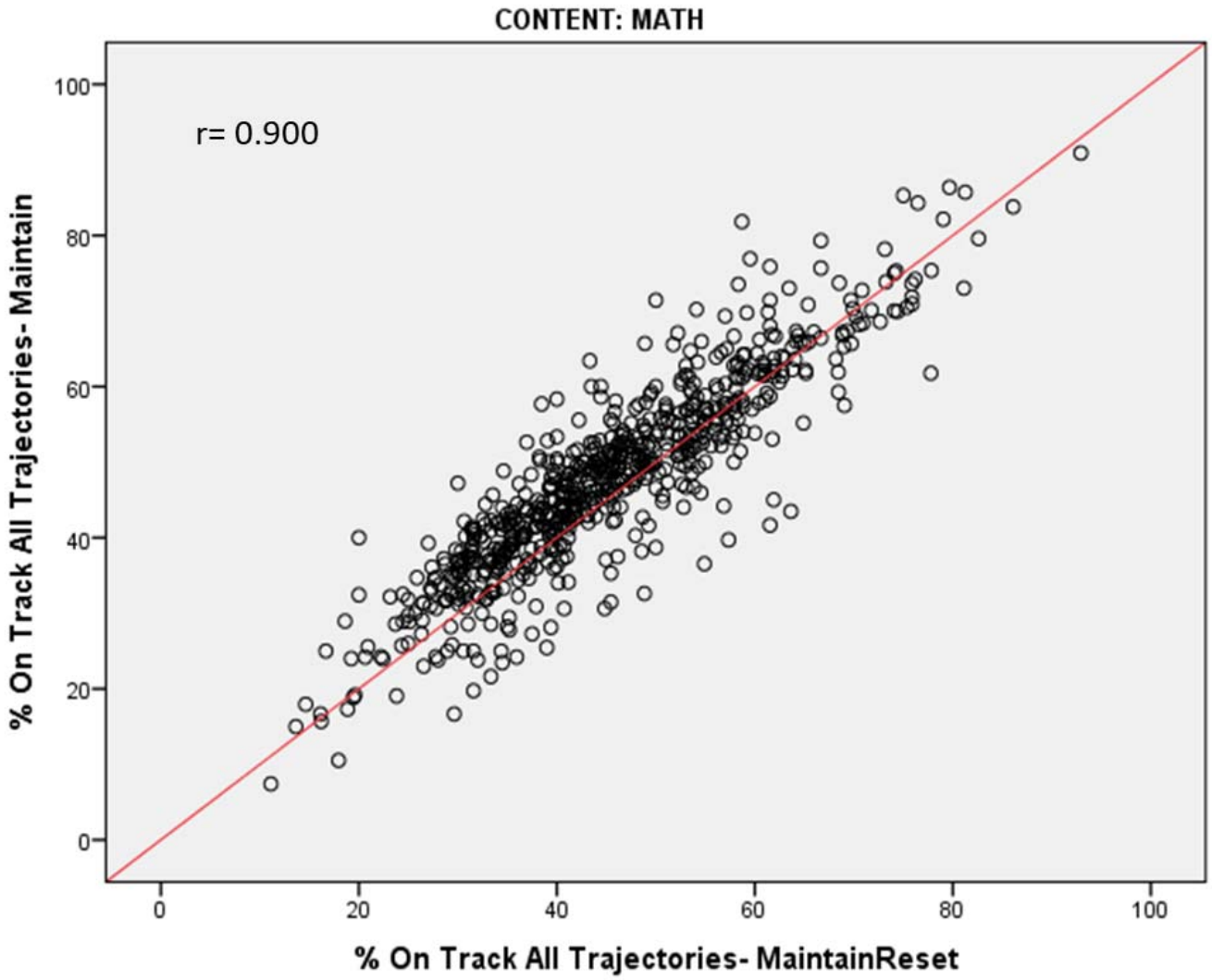
Comparison of 2018 School Ag
Track 2016 2 yr Target Scenari



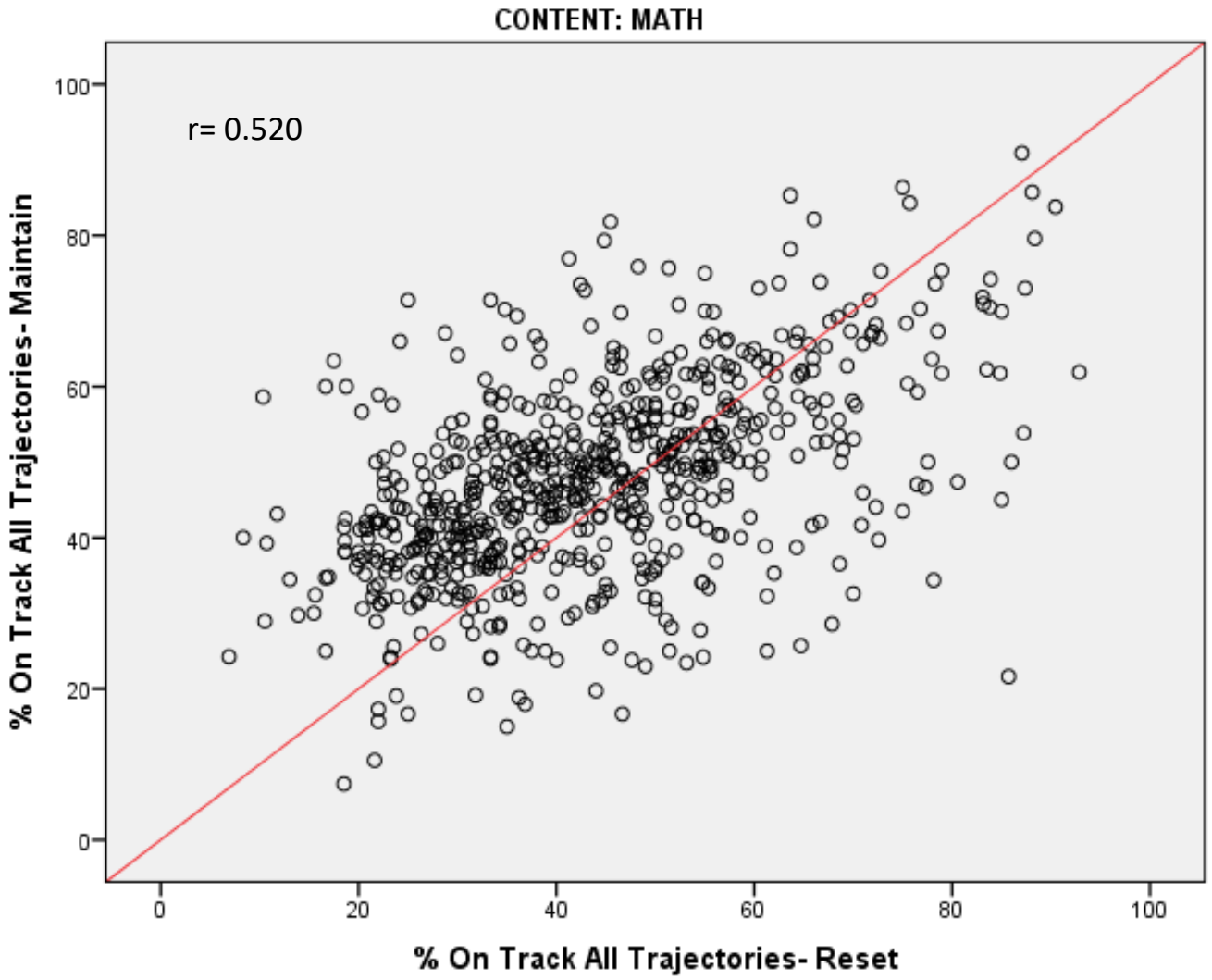
Comparison of 2018 School Ag
Track 2016 2 yr Target Scenari



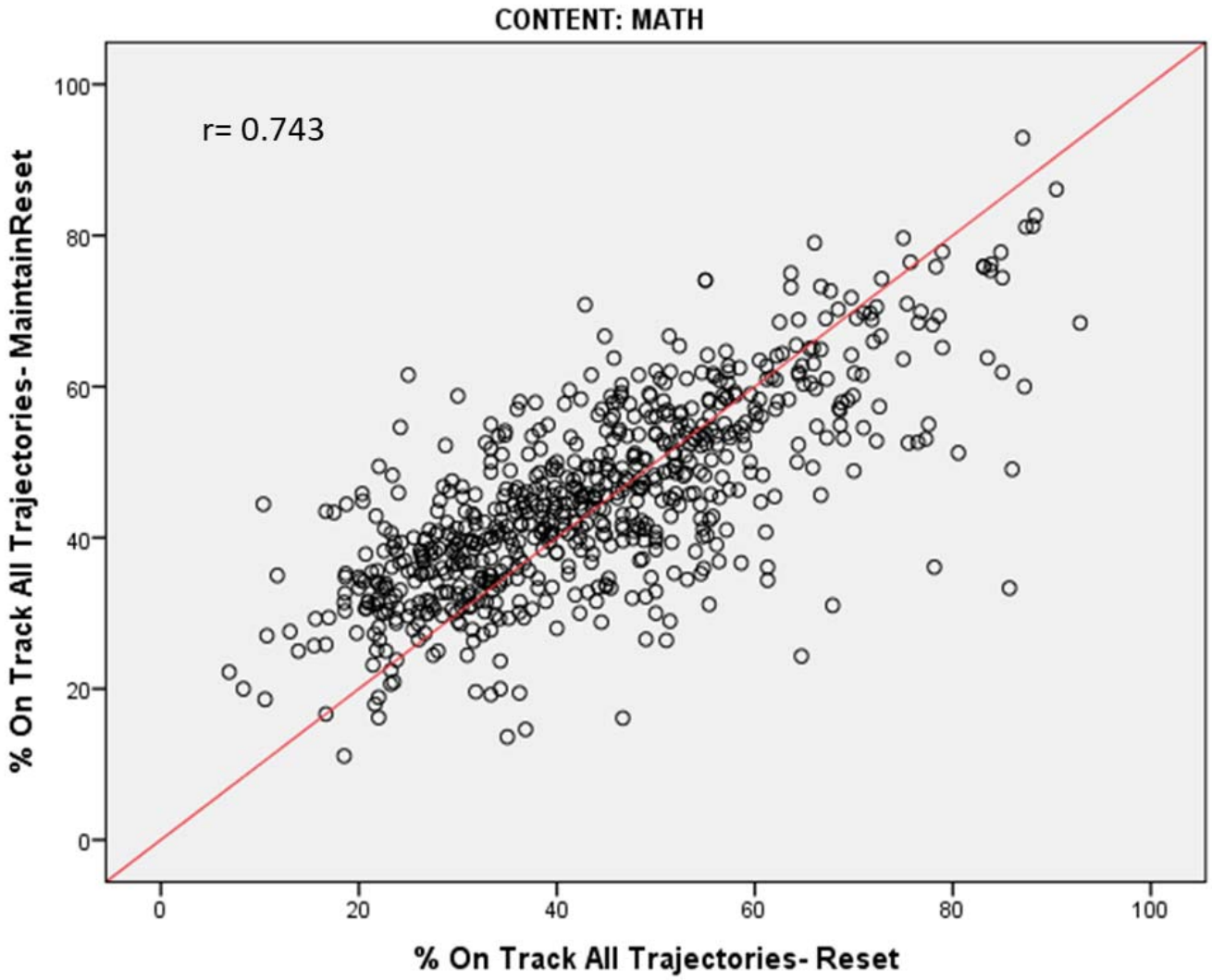
Comparison of 2018 School Ag
Track 2016 2 yr Target Scenari



Comparison of 2018 School Ag
Track 2016 2 yr Target Scenari



Comparison of 2018 School Ag
Track 2016 2 yr Target Scenari



Reflection Time

CDE Next Steps

- Aggregate On Track by Target Scenario results at the school and district level to see how systems with varying demographic profiles perform
- Other suggestions for analysis?

Our thoughts

- If the performance frameworks are supposed to measure the impact of the reporting school, is it fair to use a trajectory that was set multiple years, and potentially multiple schools ago? For ACCESS it makes more sense since almost all students show growth over time, but for content areas, the construct behind the skills is not monotonically increasing across grades
- Optics of proption of students on track

Technical Advisory Panel

- Meeting Summary:
  - Suggested future analysis
  - TAP recommendations from this meeting
- Public Comment
- Close Meeting
  - Next Scheduled Meeting, December 10th (Mon), noon-4 at CDE.