

## **Presenters**

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McKissick Associates

Educational Planner | Architect

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McKissick Associates

GIS | Demographics

# Background & Comparison...

- School Locations
- Enrollment History
- School Capacities
  - By Grade Level
  - Per School
  - Utilization with Current Enrollment
- Projections & Growth
  - From Live Births
  - From New Housing Construction
- Implications of a County-Wide Approach

# Ease Capacity Pressure through Optimized Facility Use

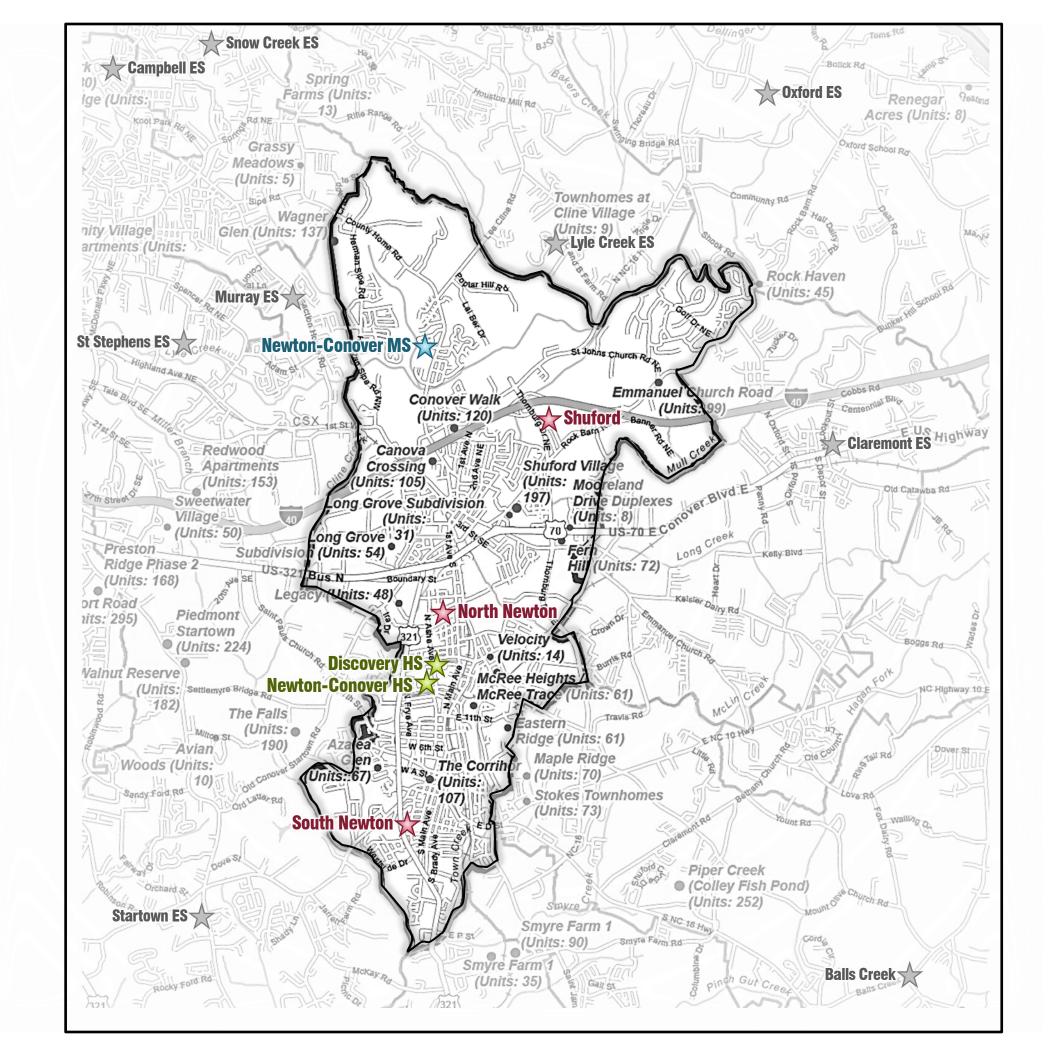
How can we optimize our facilities to accommodate existing and planned enrollment growth?

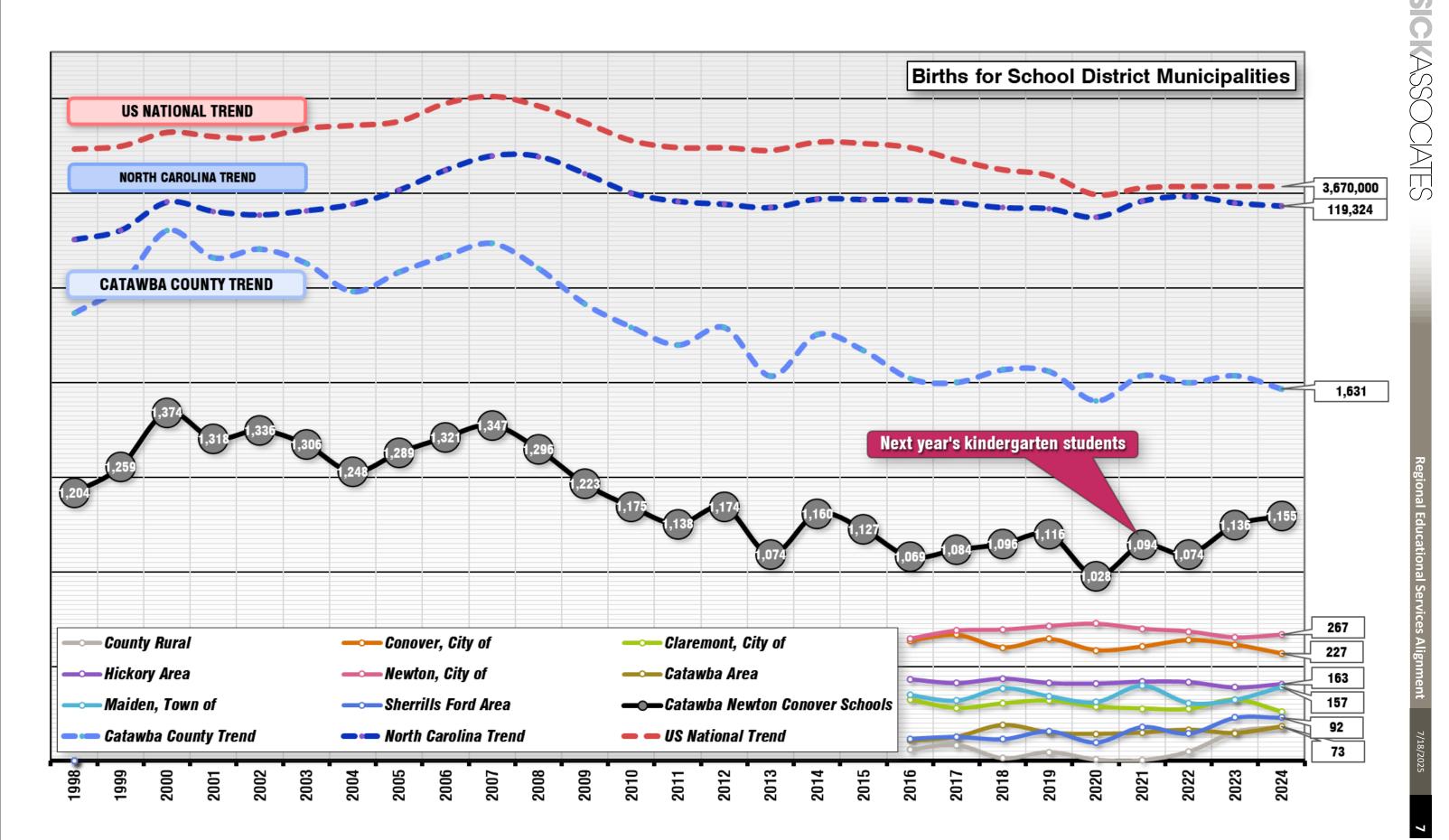
#### **Newton-Conover City Schools**

**Elementary Schools** 

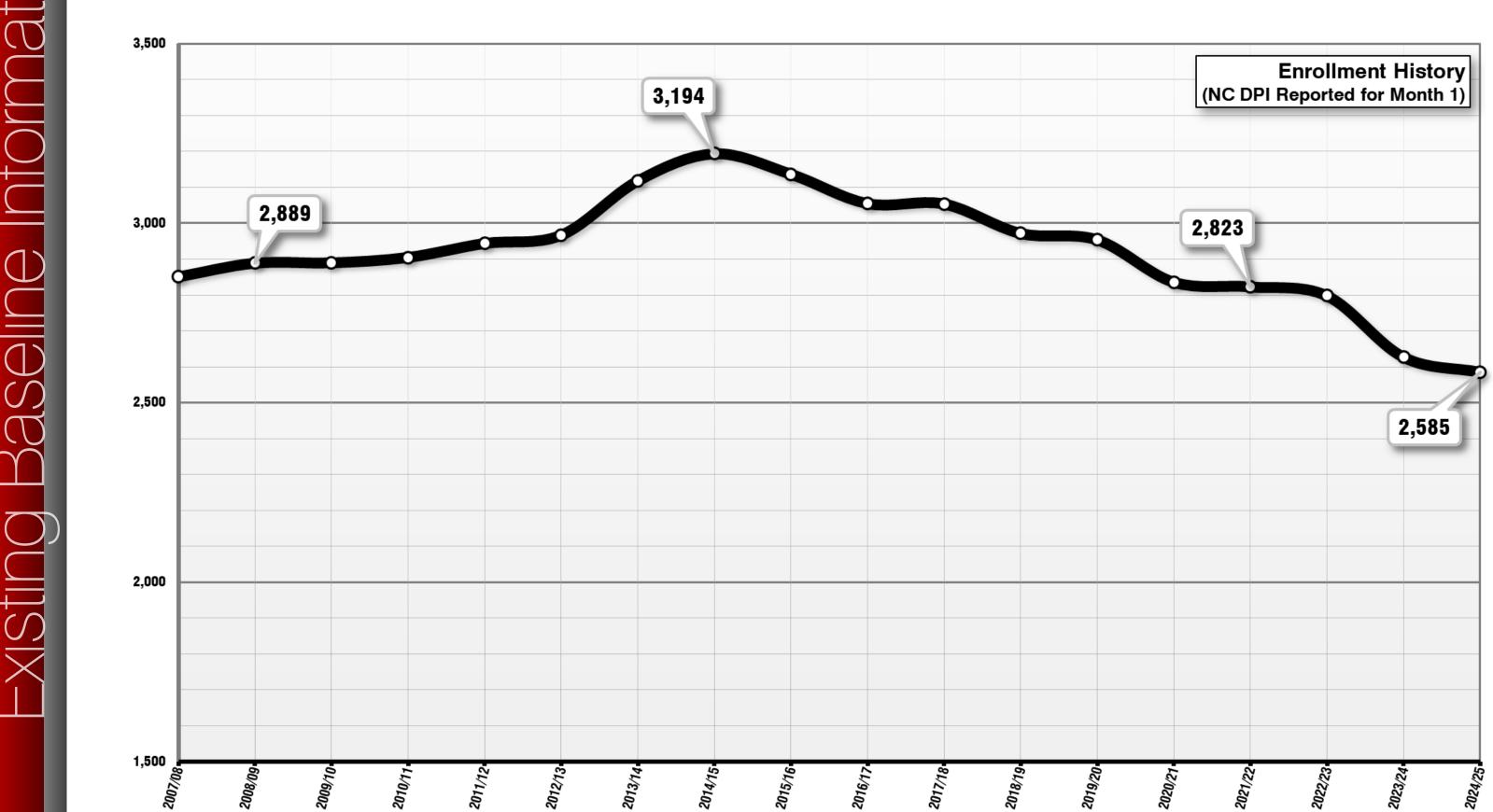
Middle Schools

High Schools

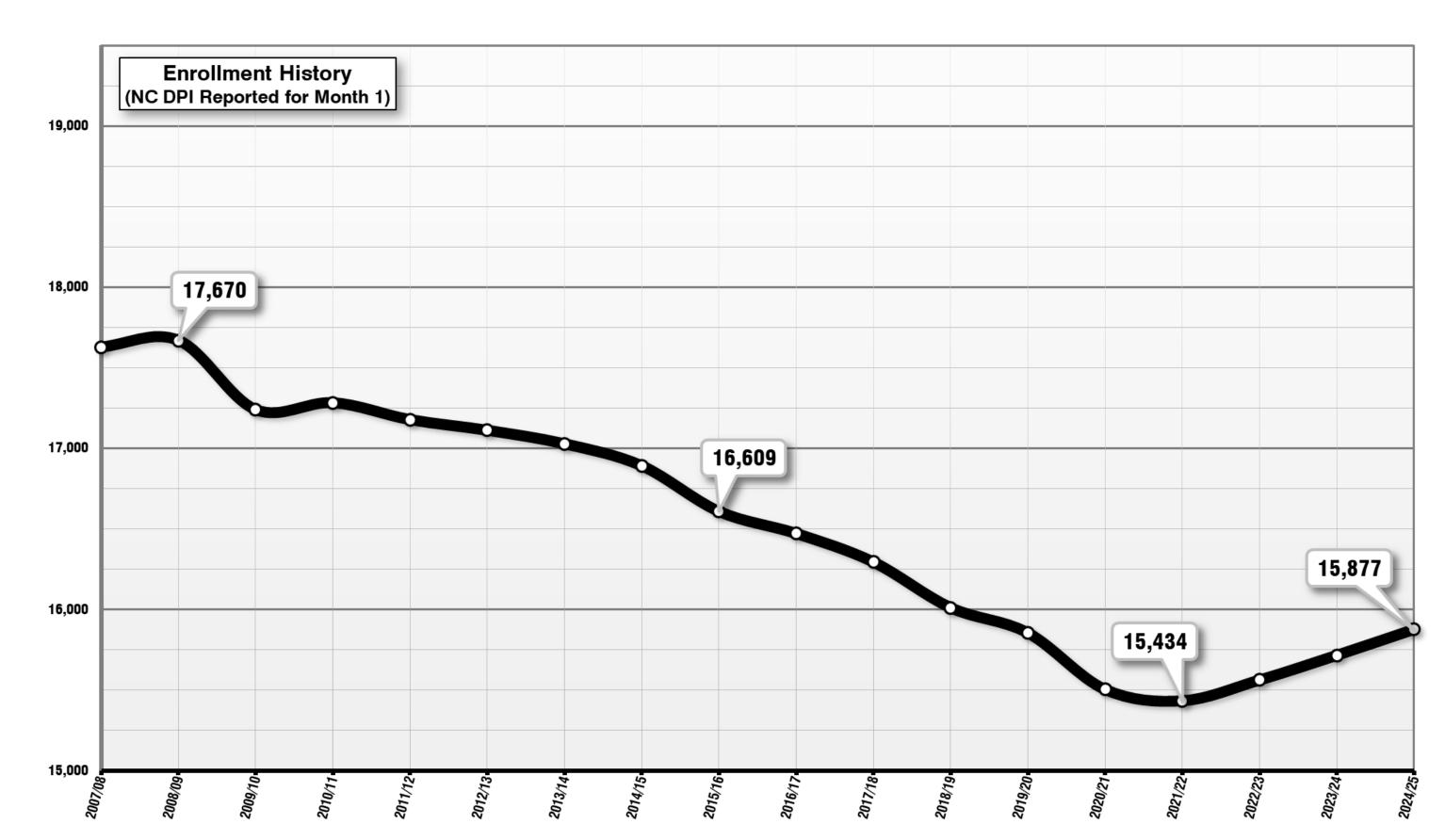




**K-12 Enrollment History** 



**K-12 Enrollment History** 



#### **DPI Capacity:**

is based on simplistic scheduling and class sizes suitable for currently recommended instructional areas & sizes.

#### **Practical Capacity:**

is focused on how spaces are or can be used and scheduled effectively.

Practical capacities as we have computed them reflect specifically how the Catawba County Schools and the Newton-Conover City Schools currently use classrooms.

Consistent class size policies and adjustments for the use of smaller classrooms have been applied using the same methods for both districts.

#### **Adjusted Buffer Capacity:**

Capacities are computed with a buffer to accommodate for scheduling flexibility and variations between grade enrollments.

Elementary (grades K through 5)

85 %

Elementary class scheduling is rigid with strict class size limitations, so 85% is used.

Secondary (grades 6 through 12)

80 %

80% buffer space is required to accommodate the block scheduling used at the middle and high school levels.

#### **Gross Capacity**

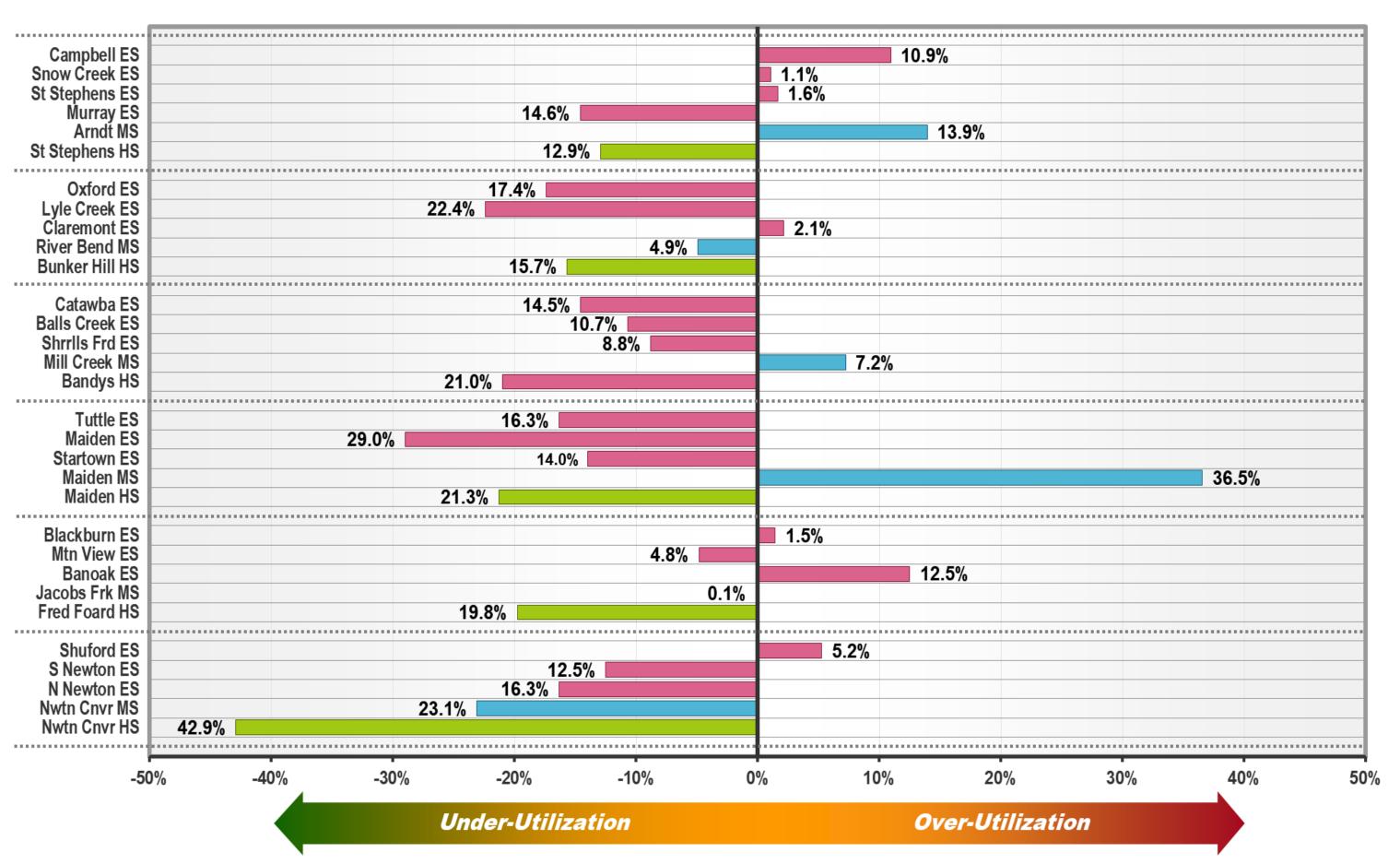
100 %

Gross capacity or 100% utilization is shown for reference. This is how many students can be seated in chairs, but not reflective of safe or effective educational procedures or guidelines.

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#### **Combined Population**

#### **Utilization for Enrollment @ Buffered Capacity**



**Anticipating Students from Migration Growth** 

#### **New Housing Units**

- Based on visits with Municipality and County Planners collecting information about:
  - Type of housing unit and quantity to be constructed
  - Likelihood of development being completed (planning stage, developer history)
  - Timeframe for construction (construction start date and time to finish)

#### **Total New Households**

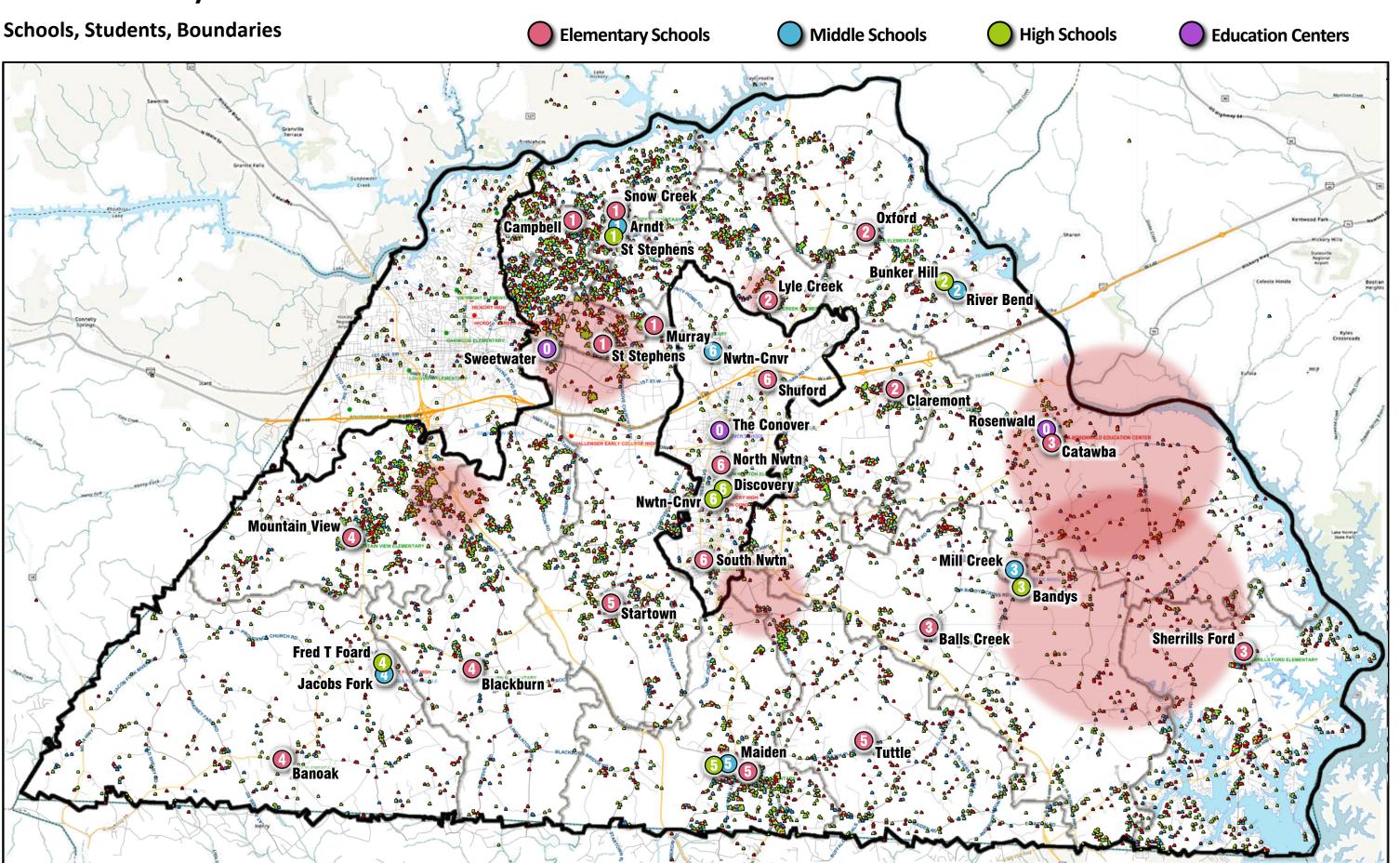
Determined based on vacancy rate and type of unit

#### **Households Likely to have Kids < 18**

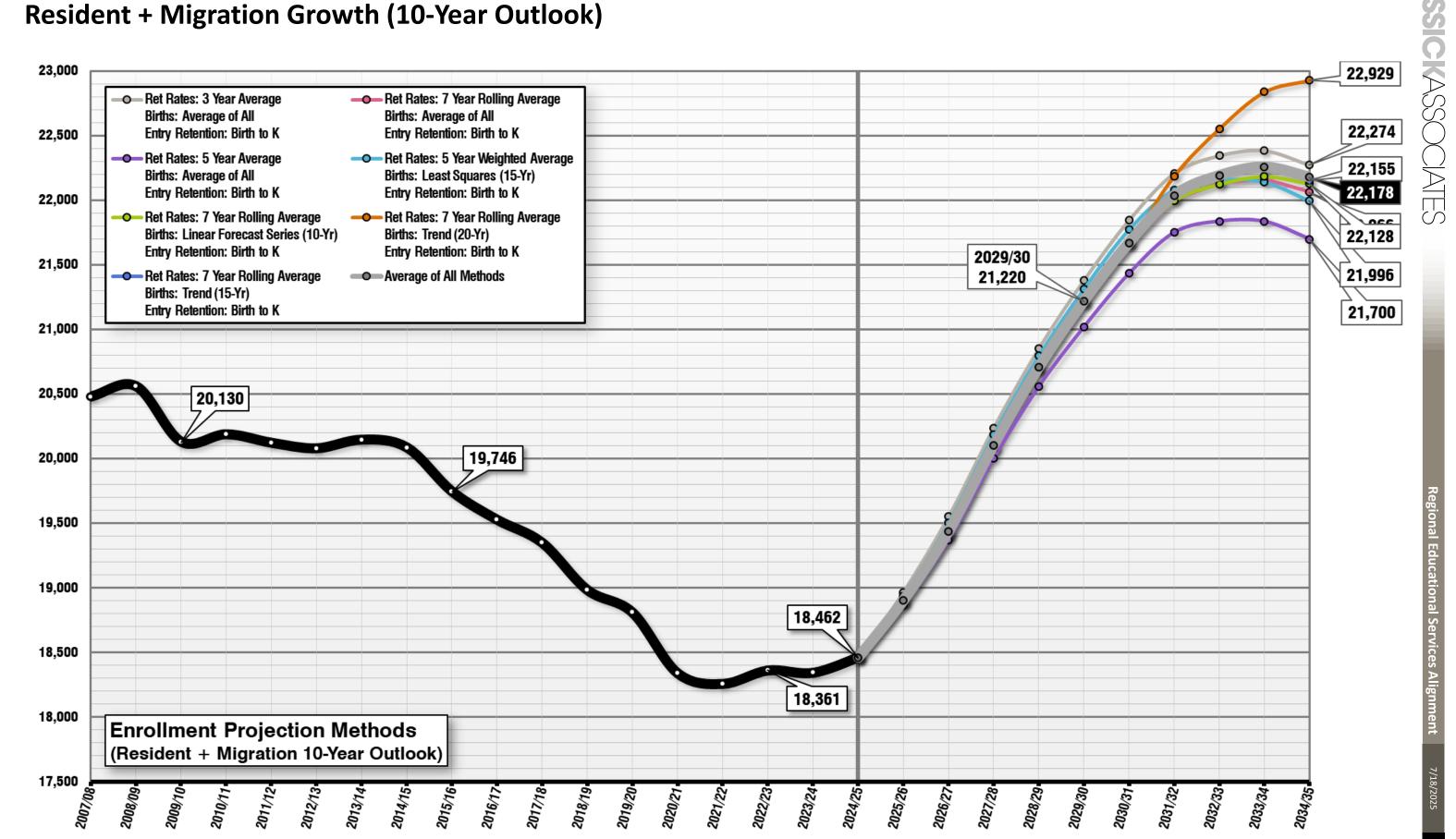
Based on housing type and census tract statistics from 2020 with updates from 2022

#### **Potential Students in Catawba County Schools**

- Assumption that current private/public school pattern will continue with 10% private (religion-based, largely Lutheran)
- Assumption that the distribution of kids < 18 is likely to be weighted toward elementary age</p>



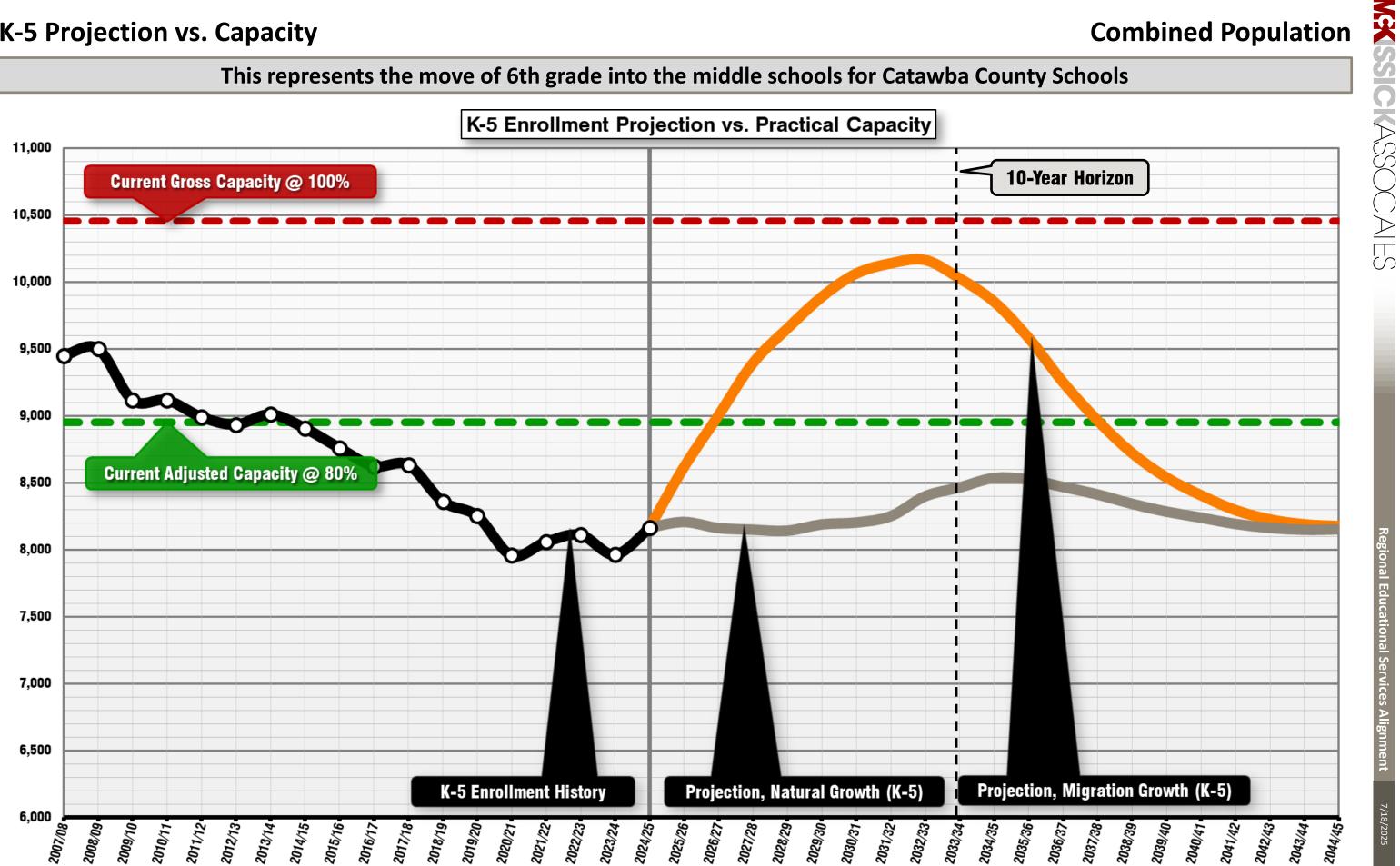
**Enrollment History & 7 Method Projection Average** 

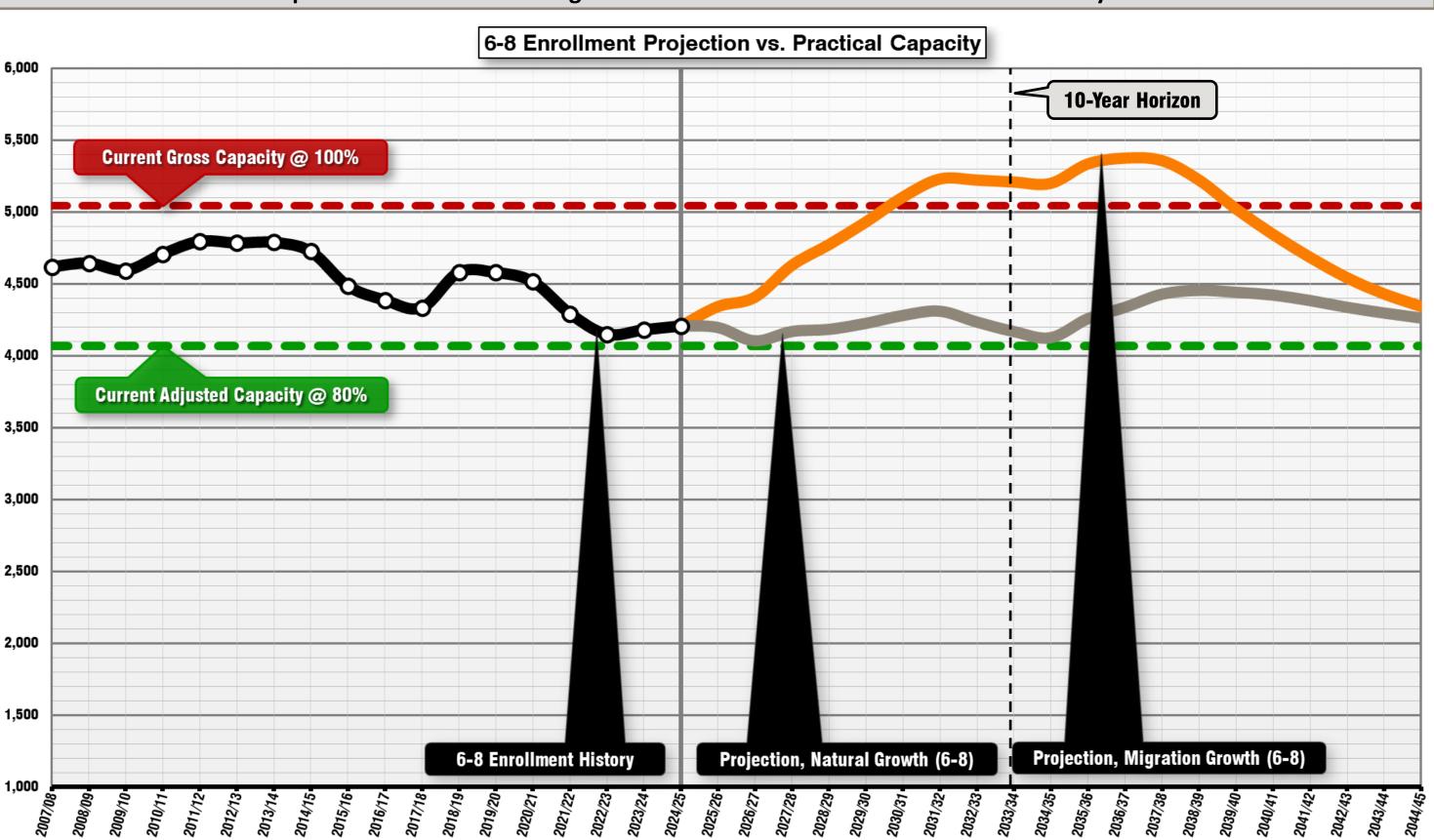


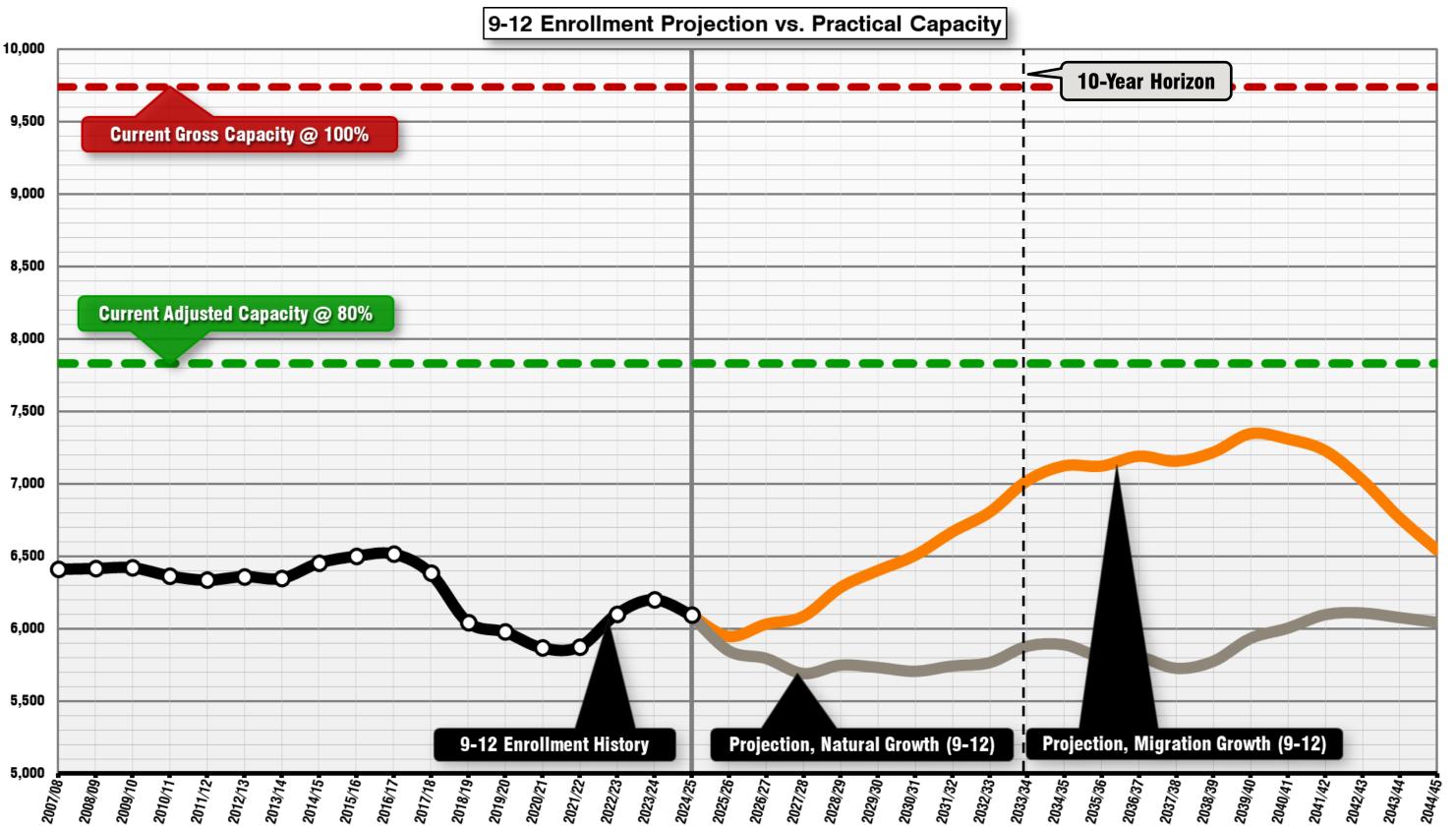
#### K-5 Projection vs. Capacity

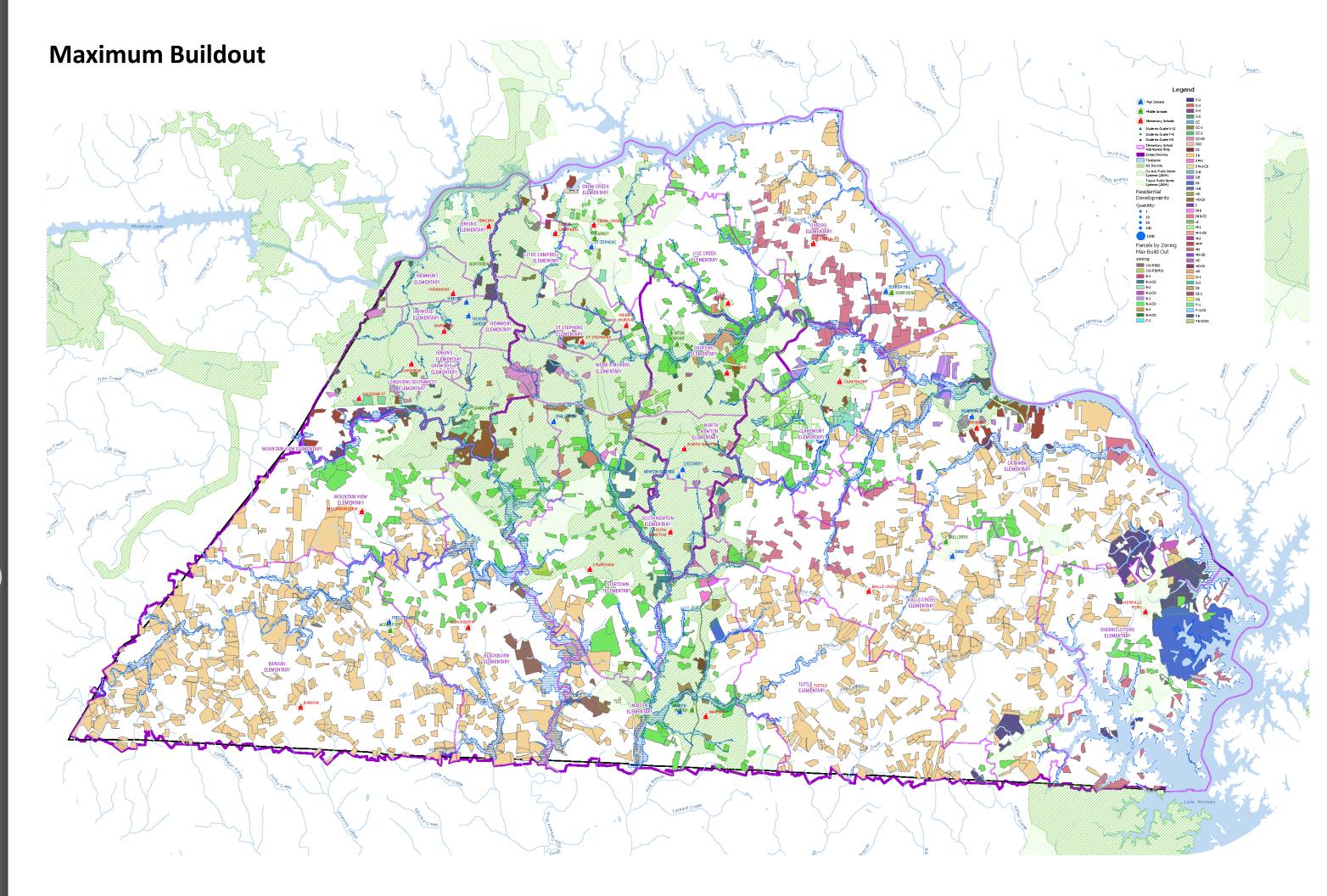
#### **Combined Population**







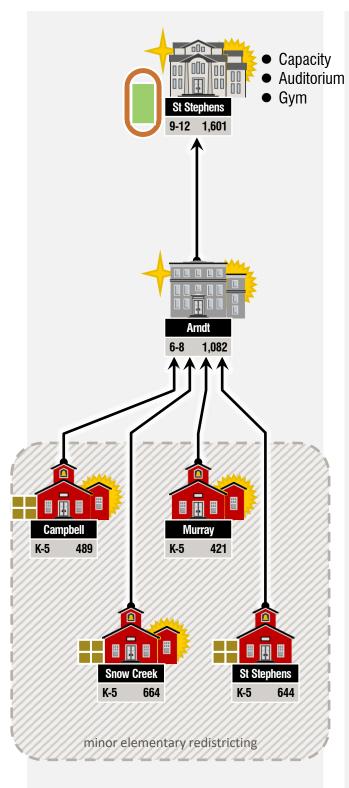


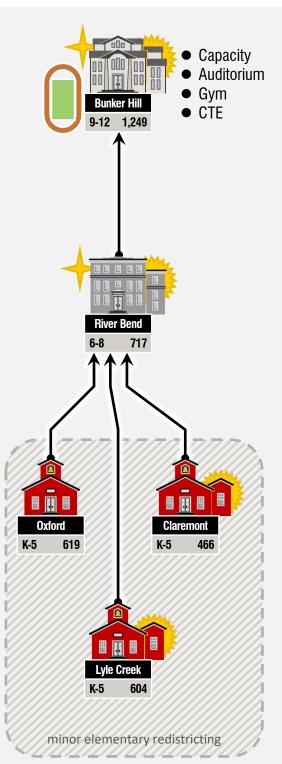


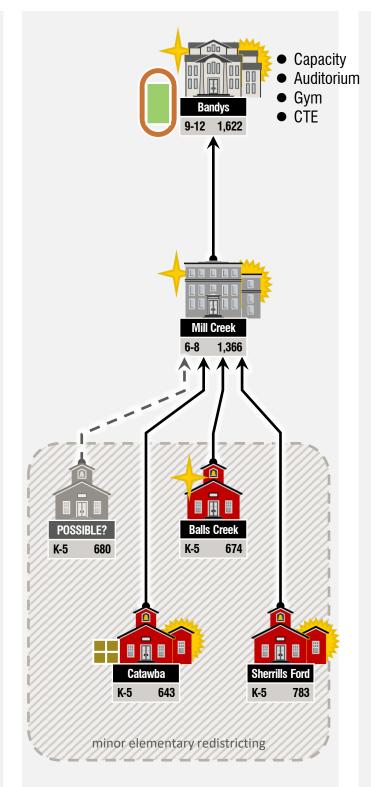
Tentative Strategy for Catawba County Schools

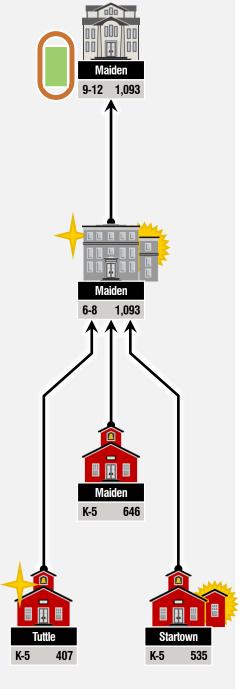
#### K-5/6-8 with HS Equity

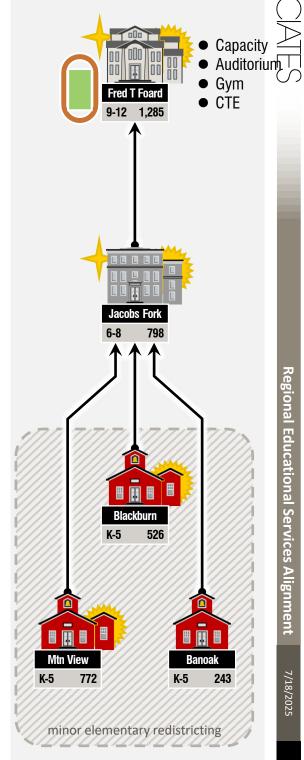
Grade Level		Schools	Seats	Buffer	Capacity	Renov SF	New SF	Cost
Elementary Schools	K-5	16	10,756	@ 85%	9,136	TBD	TBD	\$ TBD
Middle Schools	6-8	5	5,944	@ 80%	4,755	TBD	TBD	\$ TBD
High Schools	9-12	5	8,566	@ 80%	6,850	TBD	TBD	\$ TBD
Total		26	25,268		20,741	TBD	TBD	\$ TBD











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#### **Newton-Conover City Schools Capacity & Utilization**

NC	CS Facility
Newton Conover	Shuford ES
Newton Conover	South Newton ES
Newton Conover	North Newton ES
Newton Conover	Newton Conover MS
Newton Conover	Newton Conover HS

	Capacity	
Gross	Buffer	Adjusted
446	85 %	382
439	85 %	375
536	85 %	459
900	80 %	727
1,579	80 %	1,265

Utilization	Enrollment 2024/25
90.13%	402
71.30%	313
71.64%	384
62.11%	559
45.73%	722

**Newton Conover** 

3,900

3,208

61.03% **2,380** 

Excludes Discovery/Conover

Excludes Discovery/Conover

# Ease Capacity Pressure through Optimized Facility Use:



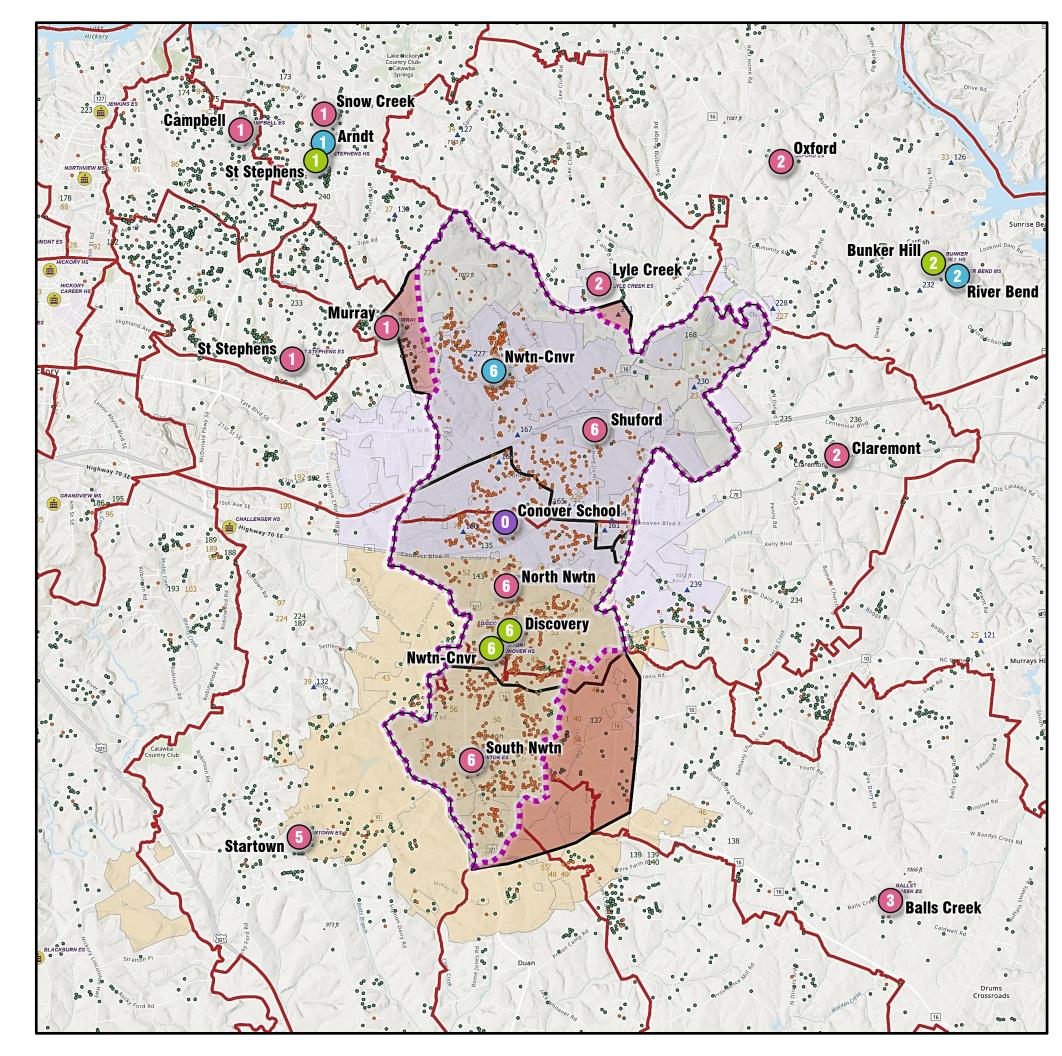








- **Elementary Schools**
- Middle Schools
- High Schools
- Special Education Center



St Stephens

St Stephens

St Stephens St Stephens

Bunker Hill

Bunker Hill

Bunker Hill

Bunker Hill

Bunker Hill

Bandys

Bandys

Bandys Bandys

Bandys

Maiden

Maiden

Maiden

Maiden

Maiden

Fred Foard

Fred Foard

Fred Foard

Fred Foard

Fred Foard

**Newton Conover** 

Newton Conover

**Newton Conover** 

**Newton Conover** 

**Newton Conover** 

**Combined District** 

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85 %

85 %

80 %

80 %

85 %

85 %

85 %

80 %

80 %

85 %

85 %

85 %

80 %

80 %

85 %

85 %

85 %

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80 %

85 %

85 %

85 %

80 %

80 %

712

424

986

1,771

669

532

445

856

1,250

514

750

708

845

1,484

445

751

599

590

1,366

481

748

263

865

1,412

446

439

536

900

1,604

24,383

within target b	aries as needed to fill Nouffers to accommodated as expeditiously as	e Catawba			
Capacity					
Facility		Gross	Buffer	Adjusted	
St Stephens	Campbell ES	440	85 %	375	
St Stephens	Snow Creek ES	552	85 %	474	

St Stephens ES

St Stephens HS

Murray ES

Arndt MS

Oxford ES

Lyle Creek ES

Claremont ES

**River Bend MS** 

**Bunker Hill HS** 

Catawba ES

**Balls Creek ES** 

Mill Creek MS

Bandys HS

**Tuttle ES** 

Maiden ES

Startown ES

Maiden MS

Maiden HS

Blackburn ES

Banoak ES

Foard HS

Shuford ES

MountainView ES

**Jacobs Fork MS** 

South Newton ES

North Newton ES

**Newton Conover MS** 

**Newton Conover HS** 

Sherrills Ford ES

djust boundaries as needed to fill Newton-Conover schools	
rithin target buffers to accommodate Catawba County's	
nmediate need as expeditiously as possble.	

•							ಶ
•	Curr	ent	Existing S Disru		After Tr	ansfers	Newton Conover
	Enroll	ment	Option	Change	Enrol	lment	/tol
Adjusted	Utilization	2024/25	Out	İn	Utilization	w/Transfers	New
375	94.55%	416	- 7		92.95%	409	7
474	86.78%	479	- 8		85.33%	471	
610	87.08%	620	- 12		85.39%	608	
363	73.11%	310	- 39		63.92%	271	
797	92.09%	908	- 25		89.55%	883	
1,424	70.02%	1,240	- 48		67.31%	1,192	
569	70.25%	470	- 14		68.16%	456	
456	66.54%	354	- 13		64.10%	341	28
378	86.74%	386	- 11		84.27%	375	
691	76.75%	657	- 17		74.77%	640	
1,008	68.00%	850	- 16		66.72%	834	
440	73.15%	376	- 3		72.57%	373	
646	76.93%	577	- 70		67.60%	507	
602	77.54%	549			77.54%	549	
678	86.04%	727	- 49		80.24%	678	
1,193	63.54%	943	- 59		59.57%	884	
380	71.46%	318	- 7		69.89%	311	
649	61.38%	461	- 5		60.72%	456	
515	73.96%	443	- 13		71.79%	430	
479	110.85%	654	- 12		108.81%	642	
1,099	63.32%	865	- 15		62.23%	850	
413	87.11%	419	- 3		86.49%	416	
641	81.55%	610	- 4		81.02%	606	
224	95.82%	252	- 1		95.44%	251	
694	80.12%	693	- 4		79.65%	689	
1,138	64.66%	913			64.66%	913	
382	90.13%	402	- 73	97	95.52%	426	53
375	71.30%	313	- 43	120	88.84%	390	
459	71.64%	384	- 33	142	91.98%	493	
727	62.11%	559		107	74.00%	666	
4 005	45.040/	700		400	50.000/		

vton Conover

27

53.62%

73.29%

604

17,870

No	CCS Facility		Capacity		Utilization	2024/25	In from	In from	Utilization	w/Transfers  426 390 493 666 860
N.	oo raciiity	Gross	Buffer	Adjusted	Ottilzation	2024/23	other NCCS	ccs	Otilization	W/ Hallsiels
Newton Conover	Shuford ES	446	85 %	382	90.13%	402	- 56	80	95.52%	426
Newton Conover	South Newton ES	439	85 %	375	71.30%	313	- 18	95	88.84%	390
Newton Conover	North Newton ES	536	85 %	459	71.64%	384	74	35	91.98%	493
Newton Conover	Newton Conover MS	900	80 %	727	62.11%	559		107	74.00%	666
Newton Conover	Newton Conover HS	1,604	80 %	1,285	45.01%	722		138	53.62%	860
Newton Conover		3,925	]	3,228	60.64%	2,380		455	72.23%	2,835
		Evelue	les Discovery/C	onover	Eveludes Disco	very/Conover	1/0	NCCS students r	noved within NCCS	

1,285

20,164

45.01%

73.29%

722

17,870

Catawba County developm
not affecting Newton-Cono
have not been incorporate

Newton Conover	Newton Conover		<b>New Deve</b>	its from elopments er 10)		Catawba County not affecting Nev have not been in	vton-Conover
vton	vton	Option	Changes	Original	Total	Enroll	ment
Nev	Nev	Out	In	Still In	Change	Utilization	w/New Devs
		- 7					409
							471
							608
							271
6		- 6					883
	6	- 6					1,192
							456
		- 28					341
							375
21		- 21					640
	26	- 26					834
							373
		- 22					507
							549
18		- 18					678
	21	- 21					884
							311
		- 35					456
		- 21					430
45		- 45					642
	55	- 55					850
							440
							606
							251
							689
							913
							310
		- 10	35	53	78	113.00%	504
		- 7	57	17	67	104.10%	457
			38	27	65	104.10%	558
96			90	96	186	94.67%	852
	108		108	108	216	67.08%	1,076
		<b></b>					
		- 328	328	301	612	75.80%	18,482

Shifting within NCCS	In from CCS	Not Shifting within NCCS	Total Change	Utilization	w/New Devs
- 10	35	53	78	113.00%	504
- 7	57	17	67	104.10%	457
17	21	27	65	104.10%	558
	90	96	186	94.67%	852
	108	108	216	67.08%	1,076
	311	301	612	87.82%	3,447
17	NCCS students	in different ES		w/o Option	2,395

**Ease Capacity Pressure through Optimized Facility Use:** 

**Changes to Utilization** 

NCCS Facility					
Newton Conover	Shuford ES				
Newton Conover	South Newton ES				
Newton Conover	North Newton ES				
Newton Conover	Newton Conover MS				
Newton Conover	Newton Conover HS				
Newton Conover	1				

Existing S Disru		After Tr	ansfers
Option	Change	Enrol	lment
Out	In	Utilization	w/Transfers
In from other NCCS	In from CCS	Utilization	w/Transfers
- 56	80	95.52%	426
- 18	95	88.84%	390
74	35	91.98%	493
	107	74.00%	666
	138	54.46%	860
	455	72.69%	2,835
149	NCCS students r	noved within NCCS	3

	New Deve	ts from elopments r 10)			
Option (	Changes	Original	Total	Enrol	lment
Out	In	Still In	Change	Utilization	w/New Devs
Shifting within NCCS	In from CCS	Not Shifting within NCCS	Total Change	Utilization	w/New Devs
- 10	35	53	78	113.00%	504
- 7	57	17	67	104.10%	457
17	21	27	65	104.10%	558
	90	96	186	94.67%	852
	108	108	216	68.14%	1,076
	311	301	612	88.38%	3,447
17	NCCS students	in different ES		w/o Option	2,395

Net increase of redirected students is 766

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<b>Ease Capacity Pressure through Optimized Facility Use:</b>
Capital Cost Offsets

Newton-Conover S	Schools	(SF per Pu	pil x 1.58 circu	lation)	Immediate
Elementary	210 students	@ 58 sf/pp	22,562 SF	@ \$ 450 / SF	\$ 10,152,900
<ul><li>Middle</li></ul>	107 students	@ 68 sf/pp	11,496 SF	@\$450/SF	\$ 5,173,200
<ul><li>High School</li></ul>	138 students	@ 78 sf/pp	17,007 SF	@\$450/SF	\$ 7,653,150
Project Costs				@ 15%	3,446,888
→ TOTAL	455 students		51,065 SF		\$ 26,426,138
		(SE ner Pu	nil x 1 58 circu	lation)	10-Year Growth
		(SE ner Pu	nil x 1 58 circu	lation)	10-Year Growth
		(SF per Pu @ 58 sf/pp	pil x 1.58 circu 10,355 SF	lation) @\$450/SF	10-Year Growth \$ 4,659,750
Newton-Conover S	Schools	•		•	
Newton-Conover S  Elementary	Schools 113 students	@ 58 sf/pp	10,355 SF	@ \$ 450 / SF	\$ 4,659,750
<ul><li>Newton-Conover S</li><li>Elementary</li><li>Middle</li></ul>	113 students 90 students	@ 58 sf/pp @ 68 sf/pp	10,355 SF 9,670 SF	@ \$ 450 / SF @ \$ 450 / SF	\$ 4,659,750 \$ 4,351,500
<ul><li>Middle</li><li>High School</li></ul>	113 students 90 students	@ 58 sf/pp @ 68 sf/pp	10,355 SF 9,670 SF	@ \$ 450 / SF @ \$ 450 / SF @ \$ 450 / SF	\$ 4,659,750 \$ 4,351,500 \$ 5,989,050
<ul><li>Newton-Conover S</li><li>Elementary</li><li>Middle</li><li>High School</li></ul>	113 students 90 students	@ 58 sf/pp @ 68 sf/pp	10,355 SF 9,670 SF	@ \$ 450 / SF @ \$ 450 / SF @ \$ 450 / SF	\$ 4,659 \$ 4,351 \$ 5,989

**Ease Capacity Pressure through Optimized Facility Use:** 

#### Advantages

- Space available immediately to accommodate Catawba County Schools growth; allows more planning time and flattens spending curve
- Catawba County Schools capital improvement costs partially avoided through using existing capacity in Newton Conover City Schools
- Fixed facility operations & maintenance costs offset by increased enrollment – lower cost per student county-wide
- School budgets for staffing positively impacted by student enrollment growth; programming can be restored in sciences, STEM, etc.
- Staffing stability and recruitment improves (recruiting teachers for districts with declining enrollment is challenging)

#### Challenges

- Shift in elementary attendance areas required to accommodate Shuford growth, balance students from Murray or St Stephens Elementaries
- Newton-Conover High school remains underutilized
- Current Newton-Conover City Schools facilities may return to larger class sizes as a result of optimization
- Possible loss of autonomy for Newton-Conover Schools under mantle of combined management

