Measuring Induction Program Impact: Promises and Pitfalls

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Roadmap for Today

- Examples/Insights from Three Induction Impact Studies
  - NTIP
  - CREATE
  - Mathematica
- Share Current Thinking on:
  - Where We Are
  - Our Best Approach At the Moment
  - Where We're Headed

Impact Measures

- Participant Satisfaction/Suggestions
- Retention
- Classroom Practices
- Student Achievement
- Workplace Impacts

Novice Teacher Induction Project (NTIP) Partnerships & Funding

- Began with teachers who entered profession in 2002-03 with follow-up continuing through 2009

- Houston Endowment
  - $2.75 million grant to Texas State University System
  - 3 years of program implementation
  - 5 years of follow-up research on each cohort

- 7 Participating Universities in the Texas State University System

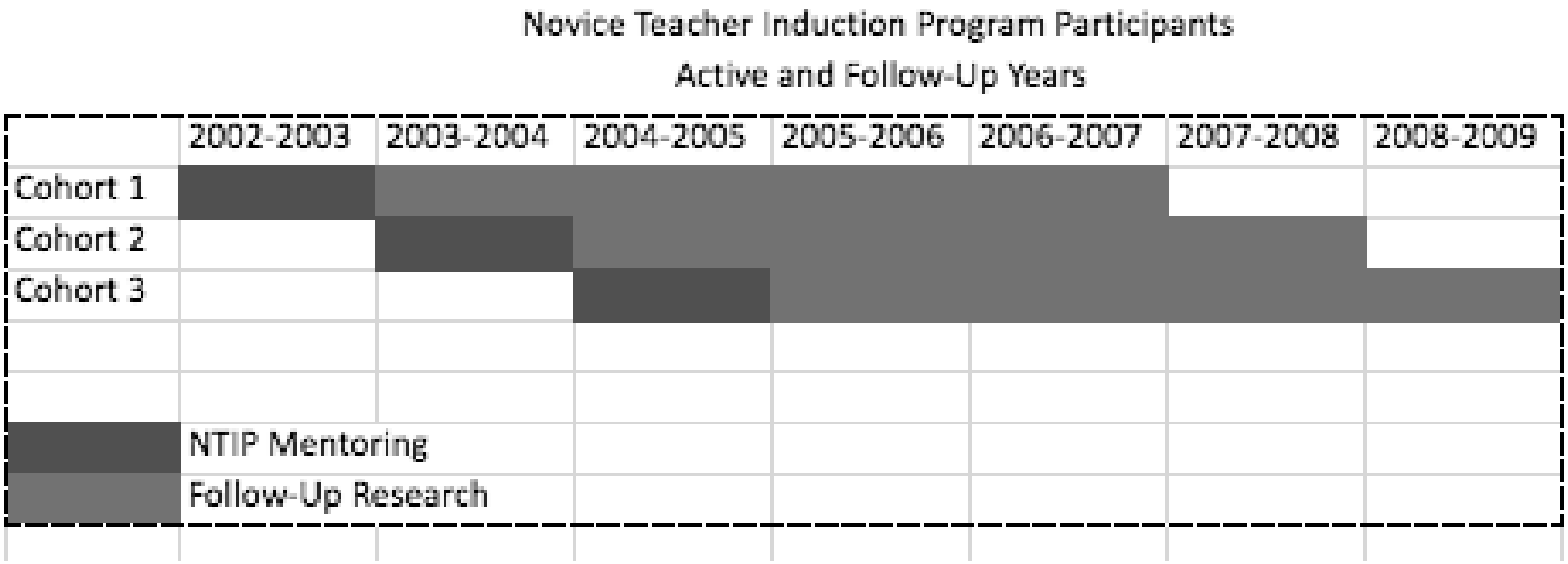
Features of NTIP

- NTIP mentors had a case load of 10:1 and worked 2 ½ days per week
- NTIP participants visited weekly by mentors
- Mentors met bi-weekly for professional development, case review and problem-solving
- NTIP participants were enrolled in 3-hr. graduate class in Fall and Spring
- Graduate class (co-taught by professors and NTIP mentors) met bi-weekly with weekly online interaction
- Course assignments focused on promoting novice teacher development

Scope of NTIP

NTIP Participants	Year 1	Year 2	Year 3
Novice Teachers	271	362	321
Campuses	73	187	160
School Districts	24	37	36
Mentors	30	38	29
University Faculty	12	9	11

Follow-Up Years by Cohort



Induction Year Measures

- Coordinated by External Evaluator
- Common Assessment (7 Universities)
- Written Surveys (fall & spring, 3 consecutive years)
  - Novice Teachers
  - School Campus Contacts (principals)
  - Mentors
  - University Program Faculty
  - University Program Coordinator

Program Evaluation Highlights

- 94% percent of the novice teacher participants reported that their mentors were very helpful
- 86% of the novices rated the NTIP graduate seminar as being valuable to them.
- 78% of NTIP novice teachers reported that they are likely to continue working toward a graduate degree.
- 75% of the NTIP novices reported they feel confident that they will still be teaching five years from now.
- 99% of the participating campus administrators indicated they felt that there is a great need for a program to support novice teachers
- 99% of school administrators responding reported they felt that this is an appropriate use of resources.
- 93% of administrators reported that NTIP met their expectations.

Follow-Up Study Measures

- Within district and within state retention collected annually on each cohort through PEIMS
- Regional and state comparison data collected annually through SBEC
- Teachers contacted via email each year for 5 years to capture reflections and career progress; coordinator continued online dialogue with respondents
- Participating universities provided data on participants' continuation in graduate studies

Retention Findings

Avg. Retention of Cohorts 1-3	NTIP % Retained	% Retained in Same ESC Regions	% Retained Statewide
5-Year Retention Rate	78.99	67.60	68.72
4-Year Retention Rate	83.96	73.44	74.53
3-Year Retention Rate	89.73	81.07	81.87
2-Year Retention Rate	94.44	89.13	90.15

Continuation in Graduate Study

NTIP Cohort	Number of Participants	Number Continuing Graduate Study Beyond NTIP	Total Graduate Hours Completed Beyond NTIP	Number Completing Graduate Degree
Cohort 1 (Entered 2002-03)	271	45	909	23
Cohort 2 (Entered 2003-04)	362	65	1422	26
Cohort 3 (Entered 2004-05)	321	94	907	20
Cohorts 1-3	954	204	3238	69

Participant Follow-Up Comments

- “I have such positive memories of this incredible program and the knowledge I gained from it. I hope to one day become a campus principal and work with such programs as yours to assist in grooming the next generation of innovative and compassionate educators.”

- “This is my third year and as I look back at the NTIP training it is more apparent that it was helpful. I enjoyed the time spent with experienced teachers and the other NTIP participants. The program did give me insight and put me ahead of the learning curve.”

- “I know I could never have come as far as I did my first year without the help and support your program provided. Keep helping those first year teachers because it makes such a significant difference.”

Leadership Roles

Leadership Role	Percent
Counselor	4.52
Assistant Principal	2.71
Department Head	2.7
Teacher Facilitator	2.7
Speech Therapist	.9
Diagnostician	.9
Teacher Supervisor	.45
Other Campus Program Leader	.45
Other Non-Campus Program Leader	2.3
Total Percent	17.63

CREATE Teacher Induction Study

(Large-Scale study of teachers who began in 2005-06)

- Study Purpose
  - to investigate the effects of mentor program infrastructure, workplace ecology, and mentor support on novice teacher retention and student achievement.

- Scope of Study
  - 451 novice teachers
    - 36% Elementary
    - 41% Middle School
    - 23% High School
  - 2,145 comparison teachers (year 1)
  - 1,373 comparison teachers (year 2)
  - 4 universities
  - 12 school districts
  - Center for Research, Evaluation & Advancement of Teacher Education (CREATE)

Data Sources

- Face-to-Face structured interviews for 451 novice teachers at their campuses
- Surveys of mentors of the 451 novice teachers
- Year 1 and 2 TAKS scores from novice teachers and 2,145 year 1 comparison teachers and 1,373 year 2 comparison teachers
- Year 2, 3, and 4 district and campus retention data

Key Findings

- Relationship between program infrastructure and support received is significant (<.01)
- Relationship between program infrastructure and retention at the district level is significant (<.01)
- Relationship between mentor support and retention of novice teachers in the district is significant (<.05)
- Relationship between workplace ecology and novice teacher retention in the district is significant (<.01)

Key Retention Findings

- 77.3% of novice teachers were retained at the same campus the 2nd year

- Of the Novice teachers who were not retained (23%) some patterns emerged. They tended to be novice teachers who:

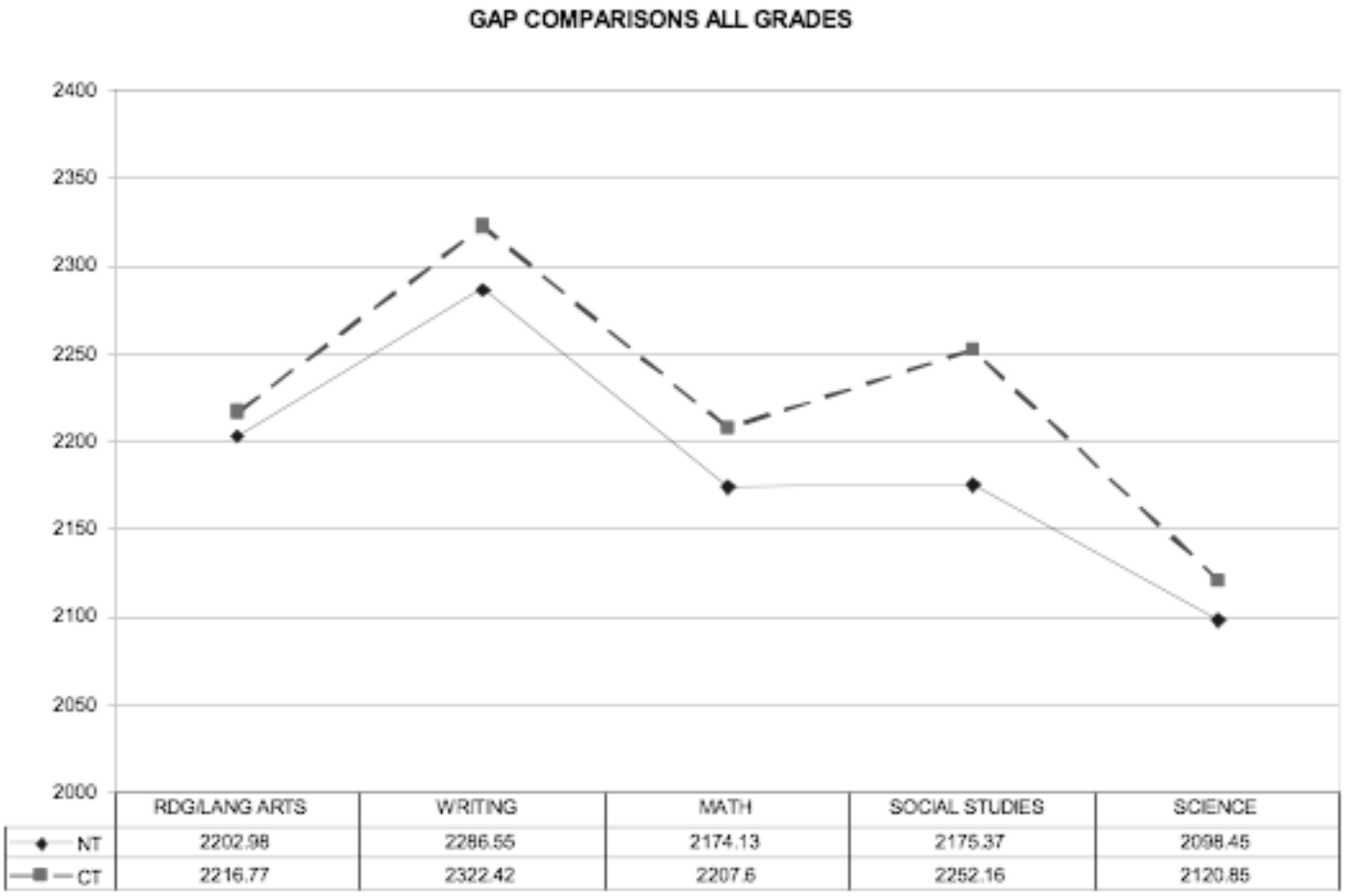
  - had **no student teaching** left the district at a slightly higher rate than did those who completed student teaching

  - rated their **relationship with their mentor** as “indifferent” left the district at twice the rate of those who rated their relationship with their mentor as “close”

Achievement Scale Scores, Pass Rates, and "Gaps"

	COMPARISON TEACHERS	NOVICE TEACHERS	NOVICE TEACHER "GAP"
ENGLISH/LANG. ARTS			
N	847	240	
PASS RATE MEAN	81.29	78.49	-2.8
PASS RATE SD	20.52	15.53	22.38
SCALE SCORE MEAN	2216.77	2202.98	-13.79
SCALE SCORE SD	71.24	77.54	67.23
WRITING			
N	236	78	
PASS RATE MEAN	96.8	88.69	-8.14
PASS RATE SD	58.92	9.05	61.04
SCALE SCORE MEAN	2322.42	2286.55	-35.86
SCALE SCORE SD	78.94	80.08	76.44
MATH			
N	723	217	
PASS RATE MEAN	75.8	66.5	-9.3
PASS RATE SD	40.41	21.76	40.07
SCALE SCORE MEAN	2207.6	2174.13	-33.47
SCALE SCORE SD	110.66	100.65	98.63
SOCIAL STUDIES			
N	97	27	
PASS RATE MEAN	79.63	69.96	-9.66
PASS RATE SD	12.88	23.99	22.91
SCALE SCORE MEAN	2252.16	2175.37	-76.79
SCALE SCORE SD	115.04	125.37	144.02
SCIENCE			
N	242	67	
PASS RATE MEAN	60.29	54.85	-5.44
PASS RATE SD	22.98	23.61	18.43
SCALE SCORE MEAN	2120.85	2098.45	-22.4
SCALE SCORE SD	98.53	110.27	89.15

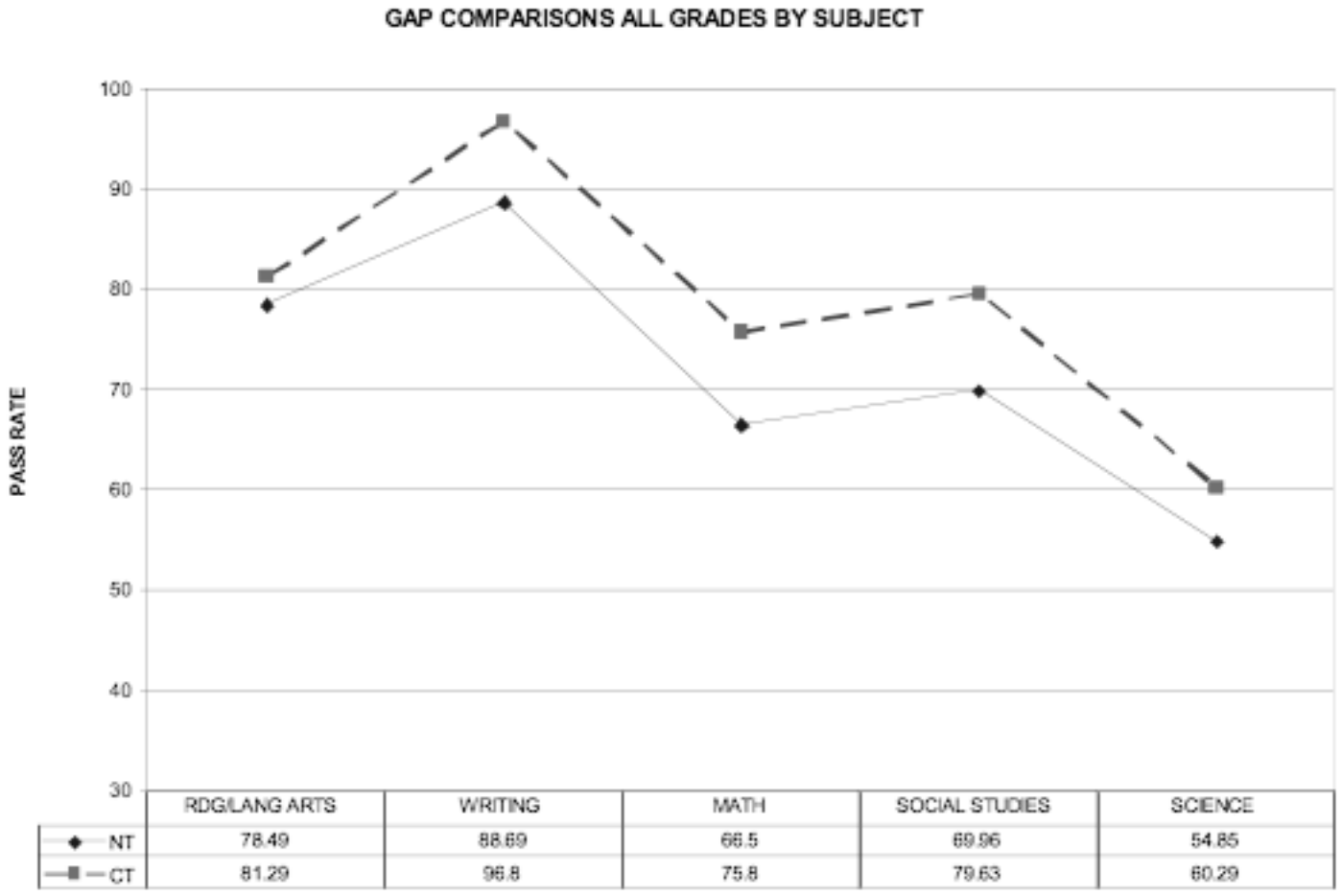
Scale Score “Gap” Comparisons



	RDG/LANG ARTS	WRITING	MATH	SOCIAL STUDIES	SCIENCE
NT	2202.98	2286.55	2174.13	2175.37	2098.45
CT	2216.77	2322.42	2207.6	2252.16	2120.85

NT= Novice Teacher; CT=Comparison Teachers

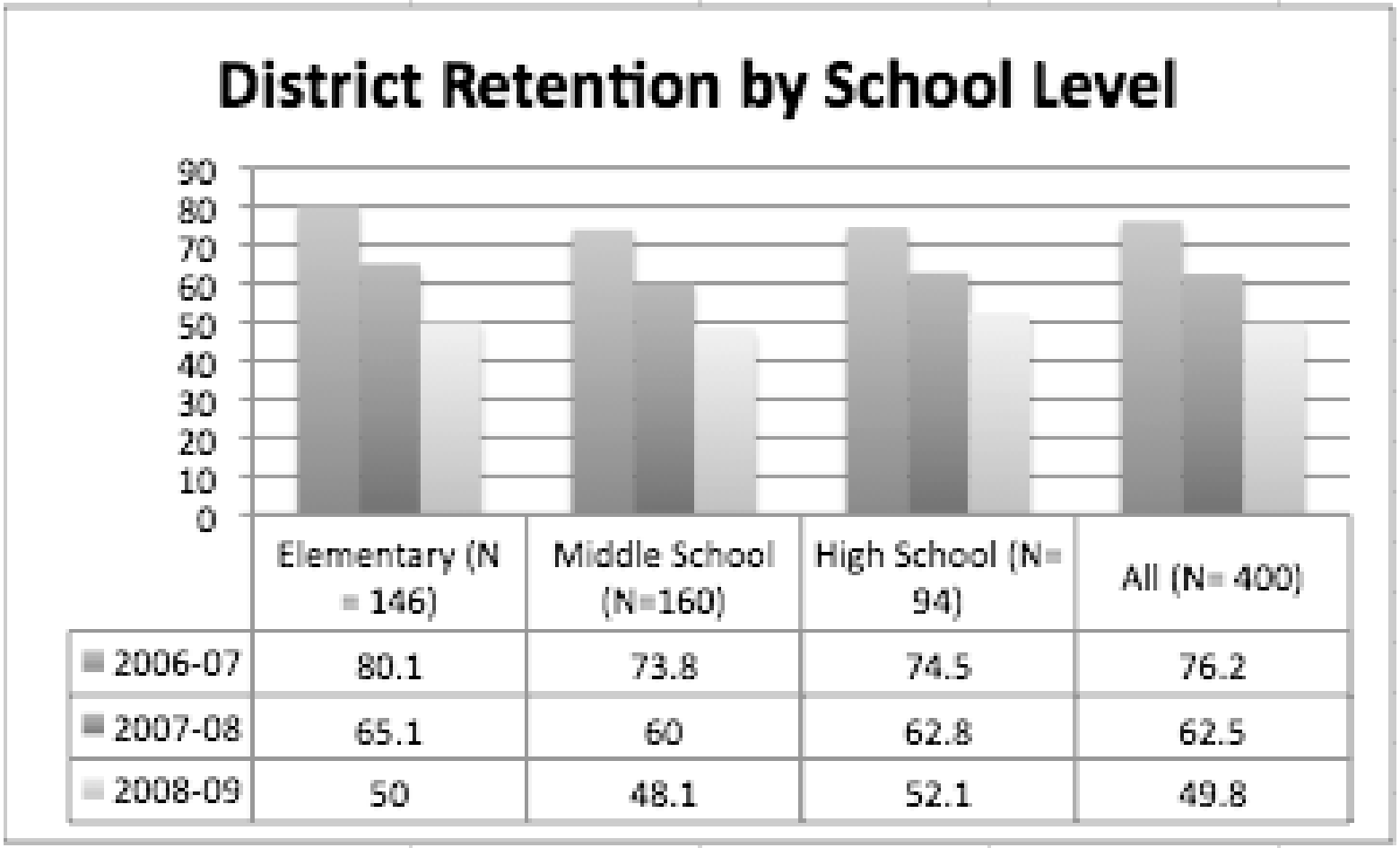
Pass Rate Gap Comparisons



	RDG/LANG ARTS	WRITING	MATH	SOCIAL STUDIES	SCIENCE
NT	78.49	88.69	66.5	69.96	54.85
CT	81.29	96.8	75.8	79.63	60.29

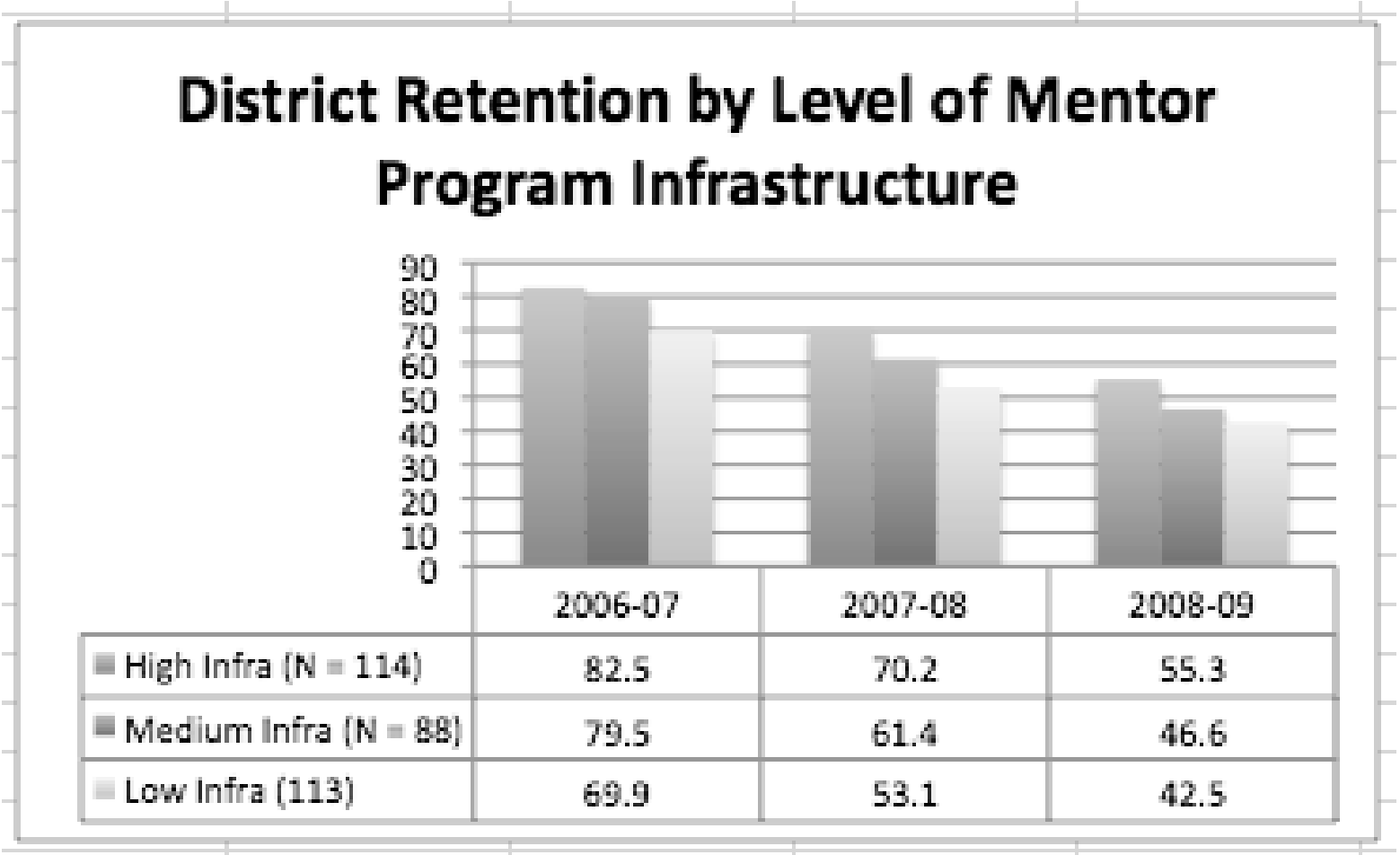
NT= Novice Teacher; CT=Comparison Teachers

What percentage of novice teachers remain in their year 1 district in subsequent years?



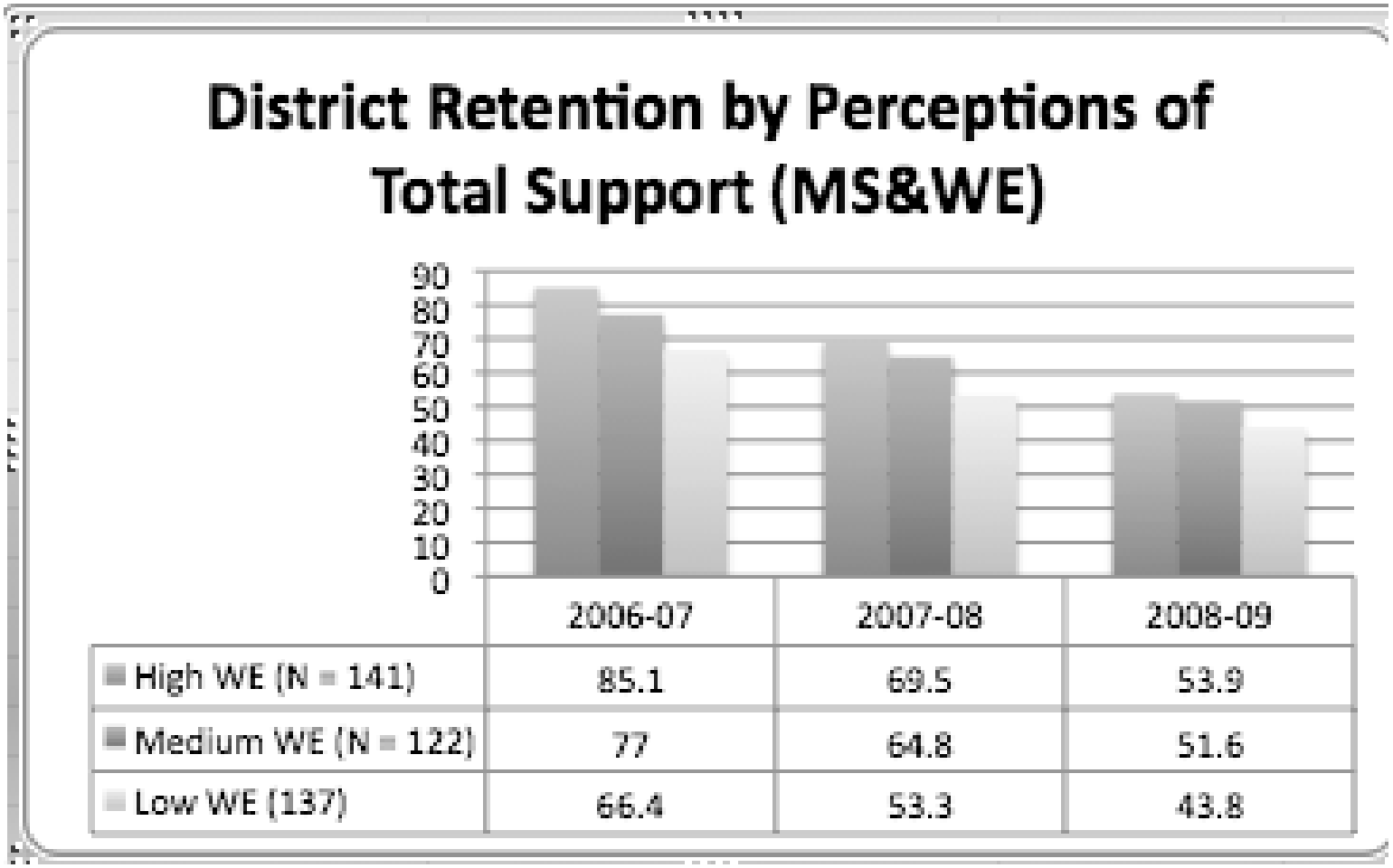
	Elementary (N = 146)	Middle School (N=160)	High School (N= 94)	All (N= 400)
2006-07	80.1	73.8	74.5	76.2
2007-08	65.1	60	62.8	62.5
2008-09	50	48.1	52.1	49.8

What influence does year 1 mentor program infrastructure have on novice teacher district retention in subsequent years?



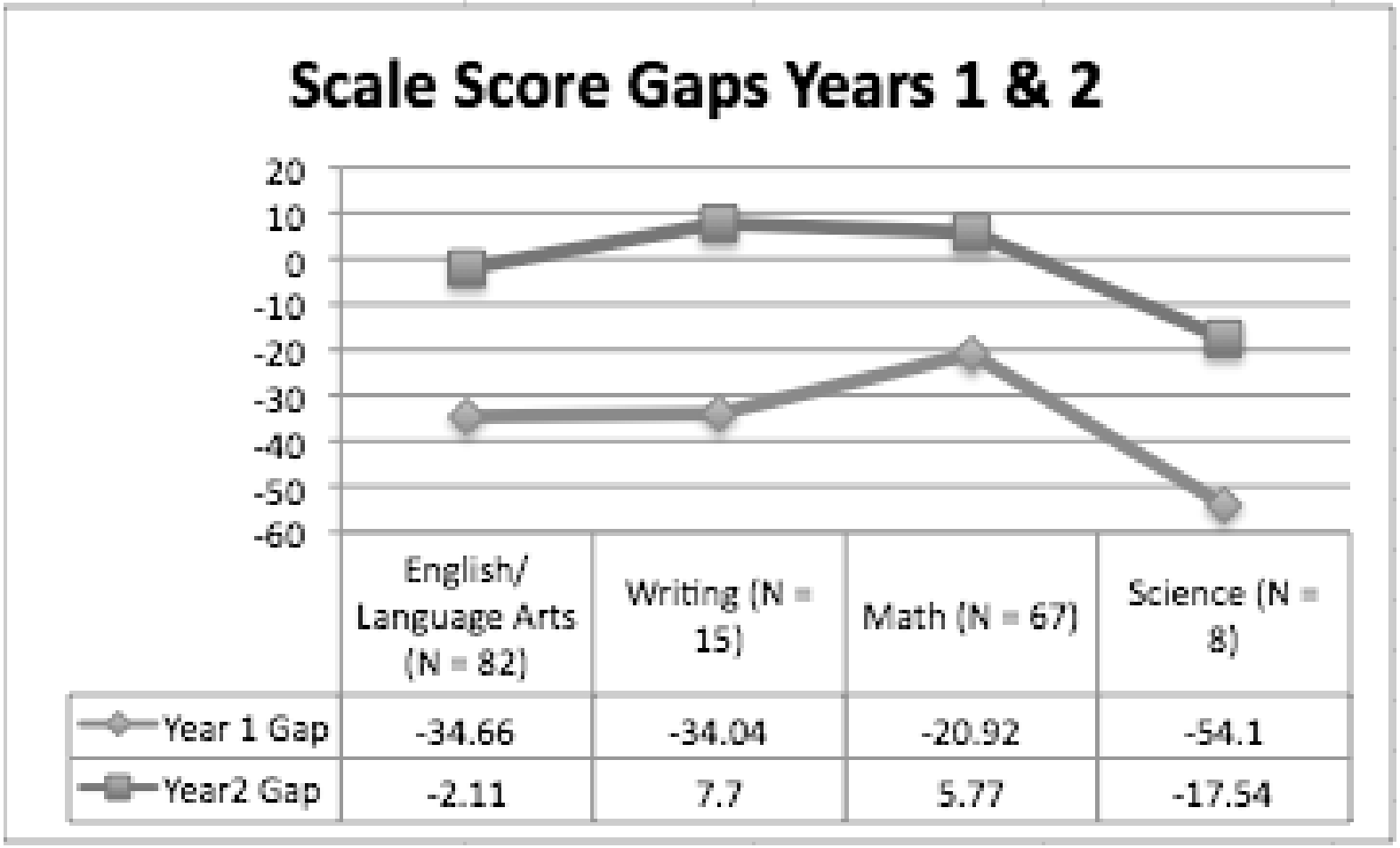
	2006-07	2007-08	2008-09
High Infra (N = 114)	82.5	70.2	55.3
Medium Infra (N = 88)	79.5	61.4	46.6
Low Infra (113)	69.9	53.1	42.5

What influence does the combination of year 1 mentor support and perceived workplace ecology have on novice teacher district retention in subsequent years?



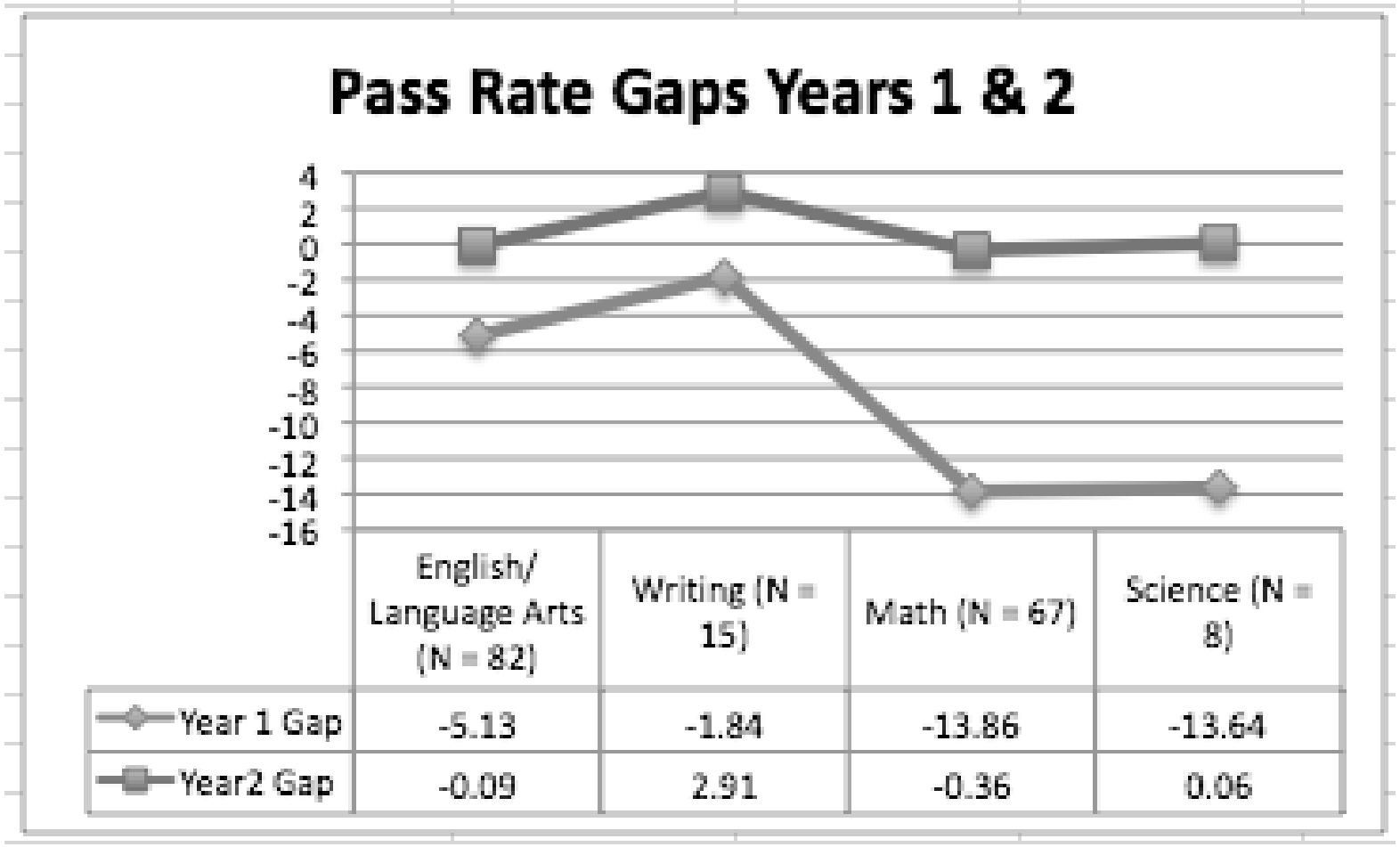
	2006-07	2007-08	2008-09
High WE (N = 141)	85.1	69.5	53.9
Medium WE (N = 122)	77	64.8	51.6
Low WE (137)	66.4	53.3	43.8

Do novice teachers in year 2 narrow the achievement gap that exists between their students and those of experienced teachers as the same campus?



	English/ Language Arts (N = 82)	Writing (N = 15)	Math (N = 67)	Science (N = 8)
Year 1 Gap	-34.66	-34.04	-20.92	-54.1
Year2 Gap	-2.11	7.7	5.77	-17.54

Do novice teachers in year 2 narrow the achievement gap that exists between their students and those of experienced teachers at the same campus?



	English/ Language Arts (N = 82)	Writing (N = 15)	Math (N = 67)	Science (N = 8)
Year 1 Gap	-5.13	-1.84	-13.86	-13.64
Year2 Gap	-0.09	2.91	-0.36	0.06

Mathematica Study (2008)

- The randomized controlled study: A journey that had to be taken
- Very large: 1009 teachers; 200 treatment schools, 208 control schools in 17 districts in 13 states
- Very expensive: $10 million (funded by USDE Institute of Education Sciences)

Mathematics's Key Findings

- Positive impacts on induction support received
- No significant differences between treatment and control teachers on classroom practices
- No significant differences between treatment and control teachers on year 1 student achievement.
- No significant differences between treatment and control teachers on teacher retention.

Huling's Mathematica "Hunches"

- It is likely that a substantial amount of mentoring occurred in the control group.
- There was likely a degree of "lack of fidelity" in the treatment group.
- There is a need to identify actual practices in great detail and to form "groups" based on actual practices.

Huling's Take At the Moment

- Participant Satisfaction/Suggestions—Not especially "glamorous" but can yield useful information that can utilized for program refinement

- Retention— "Doable" and helpful but also compounded by many factors

- Classroom Practices—Helpful; somewhat costly; not particularly convincing to policymakers

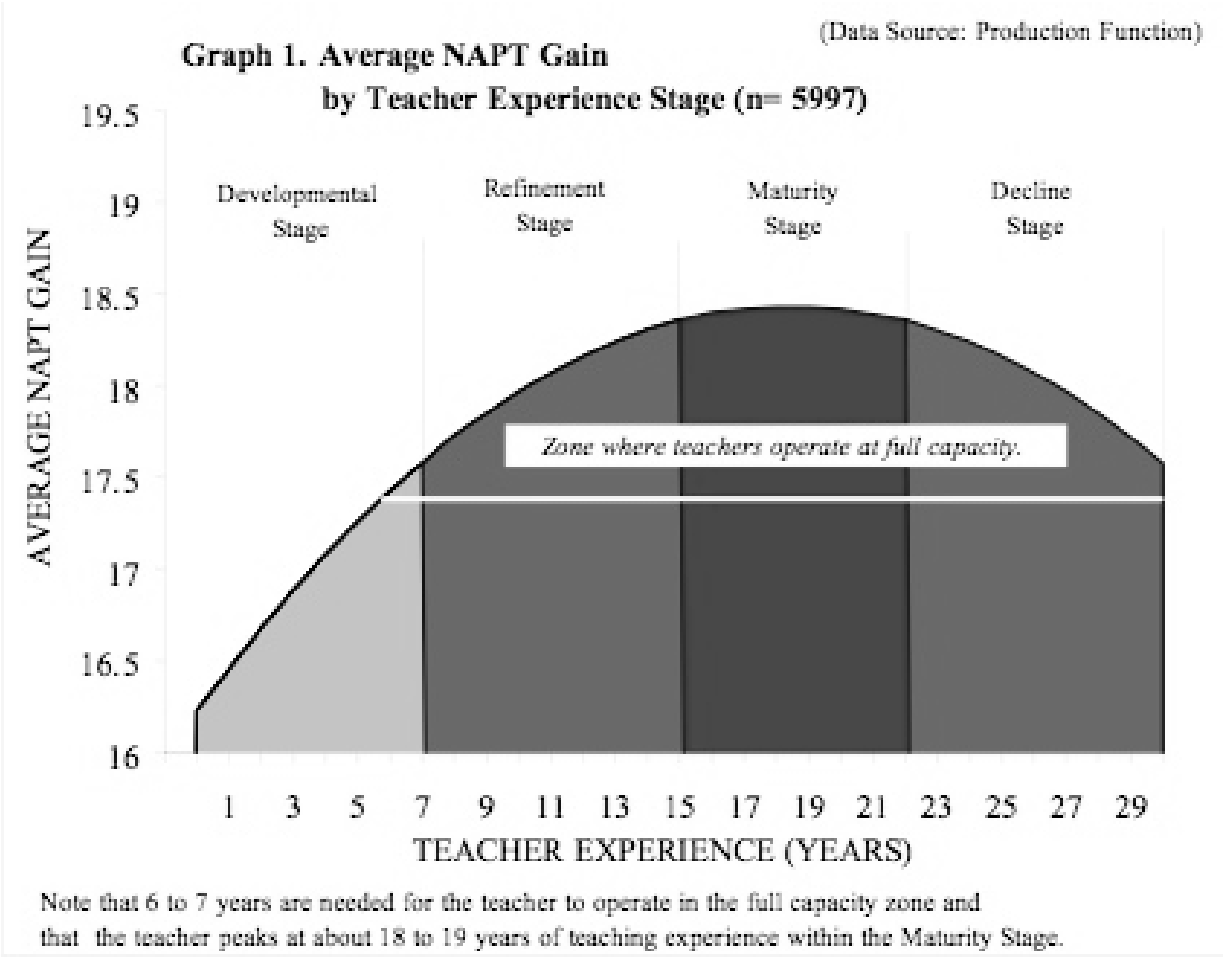
Huling's Take on Student Achievement

- Novice teacher student achievement findings aren't likely to be substantial; they are labor-intensive and costly; they are enormously complex.
- It never hurts to "eyeball" achievement.
- Gap may be a good middle ground approach for looking at achievement.
- In the future, it may be productive to use sophisticated value-added achievement measures that are calculated and shared by district evaluation offices.

A Different Perspective on Student Achievement

- Mentor Support Does Affect Achievement
  - Not because support provided in Sept./Oct. shows up in achievement in April/May
  - Rather, it is because support affects retention. Achievement increases with years of experience.

Achievement Increased with Teaching Experience



Note that 6 to 7 years are needed for the teacher to operate in the full capacity zone and that the teacher peaks at about 18 to 19 years of teaching experience within the Maturity Stage.

Workplace Impacts

- Probably best explored qualitatively or through mixed-methods.
- Impacts can be positive or negative; it is possible to study what “doesn’t” happen as well as what happens.
- Has great dissertation potential.

In Closing

- We've come a long way.
- Not all of it has been pretty.
- We will continue to be asked to provide evidence of impact and to justify the expenditures of resources on induction programs.
- It is necessary to expand the conversation beyond student achievement; it will be difficult (if not impossible) to justify induction with student achievement data alone.

For More Information

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