

# The Impact of Leadership Preparation: Lessons from the UCEA/TEA-SIG Taskforce and Related Research

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# Purpose

- To provide an overview on the Taskforce's work to date
- To share findings on
  - institutional differences in the nature of leadership preparation
  - program differences in graduates' career outcomes
  - how leadership preparation impacts leadership practices and school improvement work
- To highlight future research and its field benefits

# The UCEA/TEA-SIG Taskforce on Evaluating Leadership Preparation Programs

- Core group of 20-30 faculty from programs nationwide
- Meetings semi-annually for working sessions at AERA and UCEA
  - Data analysis and implications based discussions
  - Survey development and instrumentation
  - Reporting and communicating findings
  - Fund raising
- Leadership team
  - Founder: Robert Kottkamp
  - Co-chairs: Terry Orr and Diana Pounder
  - Liaisons: Steve Jacobson and Tricia Browne-Ferrigno
  - Secretary: Jennifer Friend

# Taskforce Accomplishments

- Documenting program attributes
  - Program documentation instrumentation
  - Faculty interview guides
  - Using expert standards of program quality as benchmarks
- State data system integration and analysis
  - Types of data
    - Graduates by institution
    - Teacher and school leader employment status by year
    - School and district characteristics
  - Analyses by institution types over time
    - Career advancement
    - Rate of career advancement
    - Diversity trends
    - District differences

# Taskforce accomplishments (cont.)

- Documenting graduate outcomes and program impacts:
  - Instrumentation
    - Follow up survey of graduates/alumni survey
    - Teacher survey
  - Survey fielding and analysis resources
    - IRB guidelines
    - SPSS codebook
    - Scale measure construction and statistics
  - Analyses by programs and by graduates

# Taskforce Accomplishments (cont.)

- Model of statewide collaboration on program evaluation (program documentation, statewide survey of graduates, state performance data analysis)
  - Missouri
  - Utah
  - Indiana
  - New Jersey
  - Texas (in formation)
  - Illinois (under consideration)

# Highlights of our findings

- Program qualities and attributes
- Post program career trends
- Graduate impacts
- Relationship between preparation and leadership practices and school outcomes

# # 1: Program attributes and qualities

- National institutional analyses
- Indiana statewide program study
- Utah statewide program study
- UCEA/TEA-SIG follow up survey of graduates, a five program comparison



# National institutional analysis, using IPEDS data

- In 2003, there were 472 masters degree programs nationwide, granting 15,720 degrees
- 1993-2003, Master's degree programs increased by 16 percent and the number of master's degrees granted by 90 percent.
- Degree production shifted by institutional type:
  - Research universities in producing master's, specialist, and doctoral degrees declining dramatically
  - Comprehensive colleges and universities showing over a four-fold increase in the share.
- Degree production fluctuates widely among states, unrelated to school population estimates

# Indiana Study

- Increased number of leadership preparation programs (2001-present)—10 → 17 programs
- Most are licensure only or licensure and degree programs
- All are based on the Indiana leadership standards
- Masters degrees vary from 36-42 credits, 14 months to 60 months
- Most are cohort based
- Admissions:
  - The statewide composite average GPA for admission is 2.82; the composite mode GPA is 3.0.
  - Only 7 of 17 use GREs
  - 93% acceptance rate; 1/3 of the programs accept 100%
  - Admit more women than men, and women are more likely to finish than are men
  - Admit fewer than 10% minority

# Indiana (continued)

## ■ Curriculum

- Most have a fixed curriculum
- Core courses: educational leadership, school law, the principalship, curriculum, school-community relations, and the internship or practicum
- instructional leadership classes ( $< 1/2$ ), and diversity and cultural competence only in specific courses like school-community relations.

## ■ Instruction

- significant variation in use of technology and distance learning
- Problem-based learning, case studies, and extended class discussion, are consistently used in half the courses
- Half the programs are off-site or through distance learning

## ■ Internship

- Two are embedded throughout program and coursework
- Six have district relationships for internship placement
- Internship hours average 100-150, with a range from 60-300.

# Indiana (continued)

## ■ Faculty

- Majority are adjuncts or split time faculty
- Only 20% of faculty statewide are tenure-line full time leadership preparation faculty

## ■ Assessment

- Prior to internship
- Program completion (grades, portfolio (without clear assessments) and SLLA assessment (10 programs, 96-100% passage rate

# UCEA/TEA-SIG findings

- Eight programs (only 5 shown here)
  - One partnership
  - Four public
  - NCATE accredited institutions
- Total sample
  - 477 respondents
  - 69 respondents are current principals
  - 23-61% response rate

## Program feature ratings and qualities by program

Feature	A	B	C	D	E	Total	s.d.
a. Content focus on leading learning.	3.8	4.1	3.6	4.1	4.0	4.0**	0.7
b. Program content challenging, coherent and reflective	4.0	4.4	3.5	4.1	4.1	4.1**	0.7
c. Supportive organizational structures	NA	4.2	3.7	4.4	4.3	4.2**	0.7
d. Student-centered instructional practices	3.2	3.7	3.8	4.2	3.8	3.8**	0.7
e. Faculty competence and challenge	4.2	4.5	4.0	4.3	4.3	4.3**	0.7
f. In a cohort	5.0	4.6	2.1	5.0	3.2	3.7**	1.6
g. Positive student relationships	3.8	3.9	3.5	4.2	4.0	4.0**	0.9
h. Mean weeks of internship	84	36	34	11	21	25**	17.4
i. Quality internship attributes	4.0	3.8	3.8	4.1	3.7	3.8	0.9

<b>OUTCOMES</b>	A	B	C	D	E	Total	s.d
<b>Learning</b>							
Learned: Vision and ethics	4.0	<b>4.1</b>	3.5	3.8	4.0	3.9**	0.8
Learned: Leading learning	3.2	<b>3.9</b>	3.4	3.8	3.8	3.7**	0.9
Learned: Managing operations	3.3	3.3	3.2	3.4	<b>3.5</b>	3.4	0.8
Learned: Engaging parents and community	3.4	3.5	3.0	3.3	<b>3.8</b>	3.5**	1.0
Learned: Organizational learning	3.8	<b>4.0</b>	3.5	3.7	3.8	3.8*	0.9
<b>Leadership orientation:</b>							
Principal Intentions	3.2	3.9	3.0	<b>4.0</b>	3.1	3.4**	1.5
Positive beliefs about the principalship	4.7	4.7	4.7	4.7	4.7	4.7	0.5
Negative beliefs	<b>4.1</b>	4.0	3.5	<b>4.1</b>	3.8	3.9**	0.8
Perceived control to make one's intentions happen	3.3	3.1	3.3	3.3	<b>3.5</b>	3.3	1.4
Subjective norm: Family, friends, administrator support	4.3	3.9	<b>4.5</b>	3.8	4.0	4.0**	1.0

# Key Findings

- Programs are very selective on prior teaching experience and leadership experience
- Most programs are delivering a good to strong program on most recommended program attributes, particularly in focus, content, student-centered instructional practices, internships, competent faculty and positive students relationships.
- Programs are more variable in their internship attributes and length.
- Graduates rated their learning highest in learning vision and ethics, organizational learning, and leading learning



# # 2—Graduates' Career Outcomes

- Indiana Study
- UCEA/TEA-SIG study
- Texas Study

# Indiana study outcomes

- Wide disparity in programs' productivity: Three programs produce half of the degrees in the state; five programs produce only 2%.
- 53% of those who completed between 2001 and present advanced to a leadership position
- Most are placed locally
- Placement rates are higher for male graduates

# UCEA/TEA SIG follow up survey of graduates' findings

- Key findings on graduate outcomes
  - Most graduates aspire to and advance into leadership positions within five years and continue to advance over time
- Key relationships
  - Content, challenge, reflection, instructional practices, faculty and internship are all related to the extent of graduate learning
  - Internship experiences are most positively related to career intentions and advancement

# Texas career trends

- 60% of certified candidates became school leaders, including 32% as principals
- Average rate to advancement is 2.0 years to an initial school leadership position and 4.0 years to principalship
- Advancement rate within two years to school leader ranges by institution type(44-66%)
- Men are more likely than women to advance (70% vs. 55%) and become a principal (39% vs. 27%) within seven years
- Nonwhites are more likely than whites to transition within seven years (64% vs. 59%), but are less likely to become principals (25% vs. 34%)

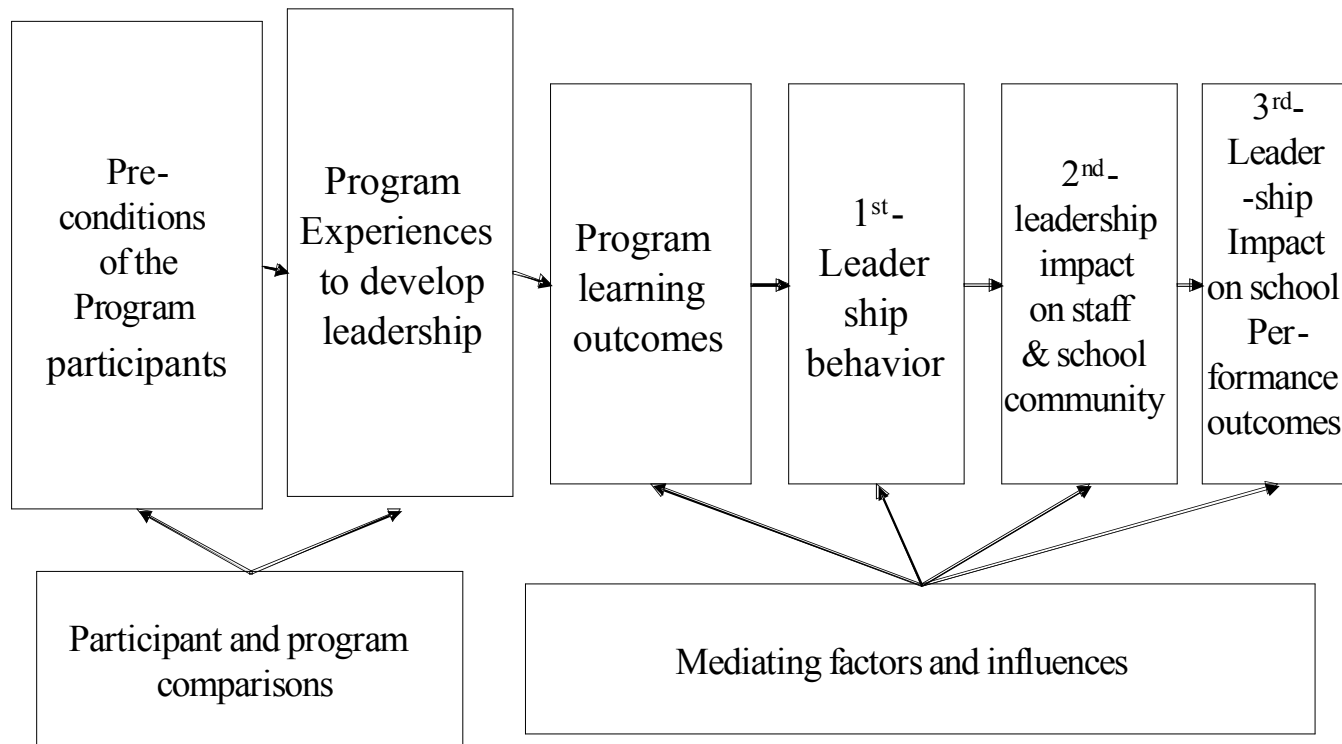
# Career Trends: Texas (% advance to leadership position within two years of graduation)

Carnegie Classification	Spring Semester of Production Cohort										Avg
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Research I	50.0%	47.1%	54.3%	54.3%	62.9%	71.4%	65.2%	64.7%	76.1%	67.4%	61.3%
Research II	35.5%	36.7%	51.9%	45.8%	42.4%	12.5%	72.7%	87.5%	71.4%	43.5%	50.0%
Doctoral I	48.6%	51.3%	54.8%	54.1%	57.6%	58.2%	60.8%	62.5%	57.4%	59.9%	56.5%
Doctoral II	42.7%	39.2%	35.2%	40.7%	42.3%	46.9%	28.6%	50.0%	53.5%	45.2%	42.4%
Masters Univ & Colleges I	43.4%	45.6%	46.8%	47.9%	43.8%	47.2%	52.1%	53.7%	51.8%	50.6%	48.3%
Masters Univ & Colleges II	57.1%	83.3%	87.5%	50.0%	70.6%	66.7%	71.4%	58.3%	50.0%	60.0%	65.5%
Baccalaureate Colleges II	45.0%	40.3%	44.0%	40.4%	40.4%	40.7%	53.3%	48.2%	40.8%	48.2%	44.1%
Alternative	na	100.0%	83.3%	73.7%	62.1%	61.2%	55.8%	63.1%	73.6%	67.1%	71.1%
Out-of-State	36.4%	37.1%	53.9%	43.0%	38.8%	51.6%	41.9%	56.3%	57.1%	47.6%	46.4%
<b>Total</b>	<b>44.0%</b>	<b>45.9%</b>	<b>48.8%</b>	<b>48.8%</b>	<b>47.1%</b>	<b>49.6%</b>	<b>53.1%</b>	<b>55.8%</b>	<b>54.2%</b>	<b>53.1%</b>	<b>50.0%</b>

## #3--How leadership preparation impacts leadership practices and school improvement work

- Drawn primarily from the Stanford University study –funded by the Wallace Foundation-- using 125 principals who had graduated from one of four exemplary leadership preparation programs and a national comparison sample of 571 principals (Darling-Hammond, et al, 2007)
- Based in part on the background work and pilot research of the UCEA/TEA-SIG Evaluation Taskforce

# Longitudinal Evaluation Design



# Theoretical background

- **Preparation** Leadership as a set of skills and qualities that can be developed through strategically designed content and active adult theory-based strategies (Dvir, et al, 2004; Jackson & Kelly, 2002; Orr, 2006)
- **Leadership** Transformational/instructional leadership as a mediating influence on school improvement (Leithwood & Jantzi, 1999; Marzano & Waters, 2004)
- **School improvement.** School improvement research on school practices that are most predictive of positive student outcomes—such as instructional change, professional development, and attention to organizational climate and effectiveness (Muijs, Harris, Chapman, Stoll, & Russ, 2004; Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006; Sweetland & Hoy, 2000).



# Sample Characteristics

	Exemplary program principals	Comparison principals	Sig.
Being female	72%	47%	***
Racial/ethnic minority	37	9	***
District pays a portion or all of program costs	51	30	***
Referred by administrator	61	30	***
Age	45	50	***
Number of years of teaching	12.6	15.1	**
Initial aspirations to be a principal	2.0	2.0	--
N=	125	571	

# Demographic and preparation measures

Measures	Principal Groups	N	Mean	S. E.	Sig.
Prior number of instruction leading experience as department chair, team leader, instructional specialist	comparison	571	1.0	.04	***
	exemplary preparation	124	1.3	.10	
Extent preparation emphasized leading learning and reflection	comparison	559	3.6	.03	***
	exemplary preparation	124	4.2	.08	
Extent preparation program offered active, student centered instruction	comparison	558	3.5	.03	***
	exemplary preparation	124	4.1	.08	
mean quality internship attributes	comparison	396	3.6	.05	***
	exemplary preparation	104	4.4	.07	

Measures: <i>Learning outcomes and leadership practices</i>	Principal Groups	N	Mean	Std. Error Mean	sg.
Extent to which principals learned to lead learning for students and teachers in their preparation	comparison	560	3.33	.036	***
	exemplary preparation	124	3.78	.083	
Extent to which principals learned to lead organizational learning in their preparation	comparison	559	3.32	.038	***
	exemplary preparation	124	3.94	.080	
positive beliefs about the principalship	comparison	567	4.72	.019	***
	exemplary preparation	124	4.84	.029	
Frequency of use of instructional leadership practices	comparison	563	2.85	.021	***
	exemplary preparation	120	3.20	.044	

Measures: <b>School Qualities and Improvement Work</b>	Principal Groups	N	Mean	S.E.	Sig.
Challenging school context—seriousness of teacher, student, and parent problems	comparison	566	2.09	.030	***
	exemplary preparation	123	2.33	.075	
Number of students in the school	comparison	565	650	21.24	NS
	exemplary preparation	124	657	35.25	
Percentage of students eligible for free or reduced fee lunch	comparison	528	39.6	1.134	***
	exemplary preparation	120	61.6	2.913	
Number of years as principal	comparison	530	5.77	.220	***
	exemplary preparation	112	3.14	.233	
Extent of school improvement progress over the last 12 months	comparison	568	4.04	.021	***
	exemplary preparation	121	4.27	.047	

## Regression analysis for predicting effective leadership practices

	Instructional Leadership			
	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	1.146	.228		.000
Female	.130	.038	.128	.001
instruction leading experience	.085	.018	.170	.000
learned leading learning, students and teachers	.061	.035	.104	.083
learned to lead organizational learning	.069	.032	.128	.033
Positive beliefs about the principalship	.235	.045	.192	.000
Number of students in the school	.000	.000	.105	.005
percentage of students eligible for free or reduced-price lunch	.003	.001	.157	.000
Challenging school context	-.061	.028	-.090	.030
r-squared	.226			.000
Adjusted R-squared	.216	.449		

## Regression analyses for predicting school improvement progress and effective school climate (academic press and improvement)

	DV: School improvement progress		DV: effective school climate—academic press and improvement	
	Standardized Coefficients Beta	Sig.	Standardized Coefficients Beta	Sig.
(Constant)		.000		.000
Female	.095	.011	--	--
learned organizational learning	.100	.008	.094	.005
Instructional leadership	.285	.000	.117	.001
Positive beliefs about the principalship	.088	.019	--	--
Number of years as principal	--	--	.210	.000
percentage students eligible for free or reduced-price lunch	.139	.001	--	--
Challenging school context teachers students parents	-.216	.000	-.285	.000
School improvement progress	--	--	.331	.000
r-squared		.000		.000
Adjusted R-squared			.389	

# Discussion

- **Hypothesis 1:** *There IS a strong positive relationship between effective leadership practices and school improvement progress and quality school improvement climate.*
- **Hypothesis 1a:** *District support does NOT have a mediating influence on the leadership practices-school improvement progress and quality school improvement climate relationships.*
- **Hypothesis 1b.** *The leadership practice-school improvement relationship IS mediated by the extent of challenging school conditions (percent students in poverty and extent of challenging problems) but not school size.*

# Discussion (continue)

- **Hypothesis 2:** *Graduates of high quality leadership preparation programs ARE more likely to report more effective leadership practices than are graduates of conventional programs.*
- **Hypothesis 2a:** *The leadership preparation- leadership practice relationship IS mediated by the extent to which graduates learn instructional leadership and organizational learning leadership.*
- **Hypothesis 2b.** *The leadership preparation- practice-school improvement relationship IS moderated by the extent to which principals are female, but NOT whether they had prior experience leading instruction, such as being a team leader, department chair, instructional specialist or coach.*



# Study Conclusions

- Of all program features, leadership-focused program content and quality internship are the most influential, showing both a direct and indirect effect on the school improvement progress outcomes. Program focus matters in how principals focus their work, particularly in fostering school improvement.
- What graduates learn about leadership is significant for how they practice leadership, which has a positive influence on their school improvement work, even in more challenging school settings.

# Conclusions (continued)

- The results show that exemplary program features are related to better learning and leadership practice.
- These results build on and extend prior, small scale research on the relationship between leadership preparation approaches and graduate outcomes, replicating their benefits and showing the relationship of those benefits to principals' school improvement work.
- Provides a viable model for replication
- More, large scale, diverse and longitudinal research is needed

# Related research findings on teachers' perceptions

- Comparison of teachers of principals from exemplary-prepared programs, with national sample of teachers who completed the School and Staffing survey (restricted to the same types of urban districts)
- Looked at teachers' perceptions of leadership practices, the effects on teacher outcomes, and the moderating influence of the principals' preparation

# Samples

- **Stanford University study sample (2005):**
  - Five states (CA, CT, KY, MS, NY)
  - Principals in one of four innovative leadership preparation or one of four innovative in-service programs
  - 16 elementary and middle schools
  - 389 teachers (214 with exemplary prepared prinpls.)
- **SASS study sample (1999-2000):**
  - Restricted to urban schools and principals with five years or less experience
  - 16 elementary and middle schools
  - 855 teachers

# Assessing the structural equation model (using WLS)

- All reported effects are statistically significant at the 0.05 level of significance.
- Innovative preparation predicts leadership practices.
- Leadership practices predict teacher professional development, distributed leadership and teacher job satisfaction and engagement, both directly and indirectly.
- Teacher job satisfaction predicts engagement and collaboration.

# Texas study findings on principal characteristics and student performance outcomes

- Using longitudinal statewide data for all Texas schools, found that high-poverty schools had:
  - more novice teachers, teacher FTEs not certified, and teachers failing certification examinations than low-poverty schools.
  - more turnover rates and lower percentages of teacher FTEs assigned in-field
  - older principals and principals with more education experience than low-poverty schools.
  - Principals who were more likely to have failed any certification examination and failed the principal certification examination. Fewer principals in high-poverty schools had scores that were in the top 10% of all test-takers.

# Future Research

- Further research
  - Test out with more varied programs and other states
  - Investigate longitudinally
  - Look at effects of program changes on graduate outcomes
- Application of evaluation research to program improvement
  - How to use these findings for policy direction
  - How to use these findings for program benchmarking and improvement

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