



# 2024 SCIENTIFIC SYMPOSIUM

From Data to Policy

Jan. 23–24, 2024 • Scottsdale, Ariz.





# Prelicensure RN Education During the Pandemic

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Director | Research

NCSBN

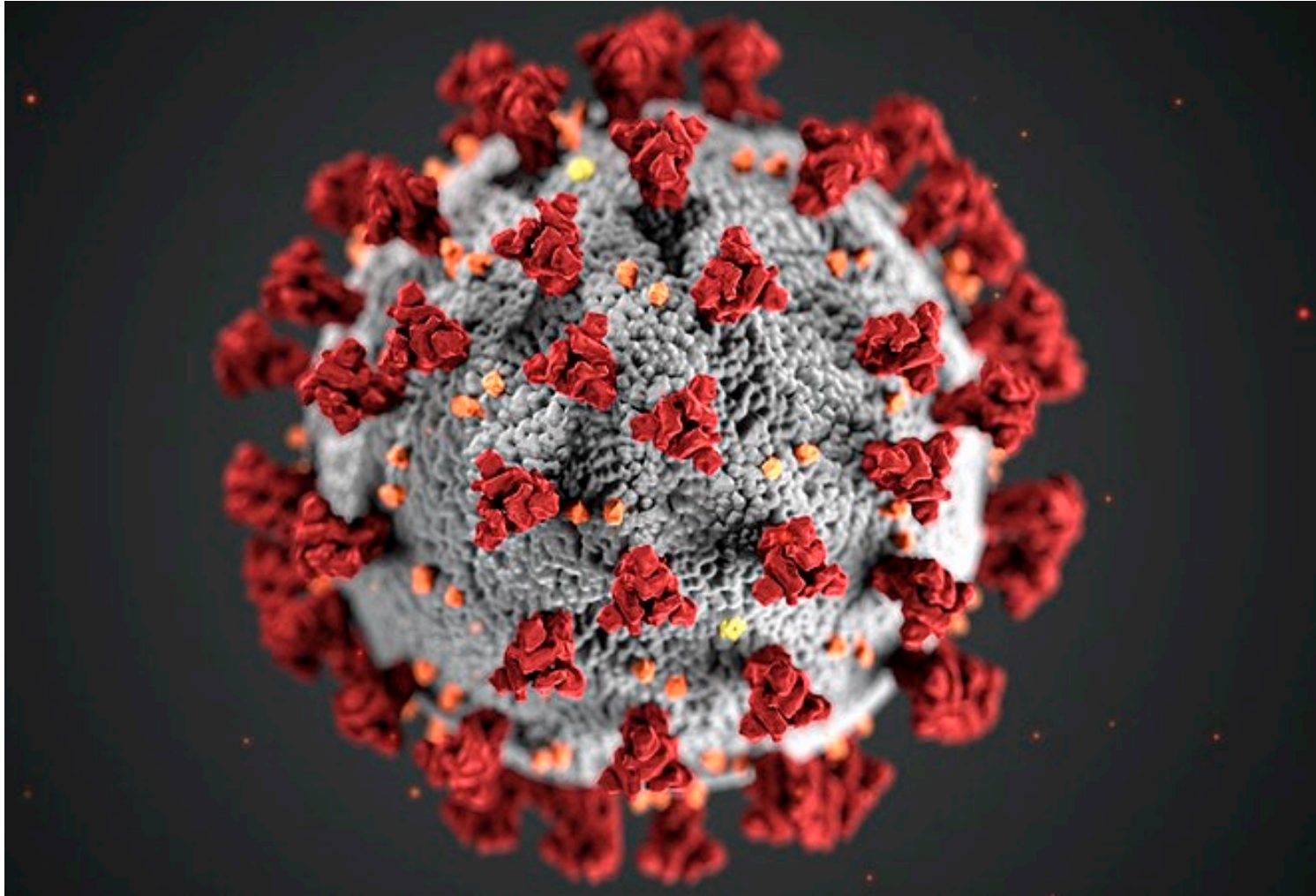
2024 SCIENTIFIC SYMPOSIUM



# Agenda

1. Background
2. Methodology
3. Results
4. Questions/Comments

# COVID-19 Research Agenda



- April 2020 – April 2023
- 10+ applied studies
- Every level of nursing

# 2022 National Nursing Workforce Survey

The largest, most comprehensive and rigorous evaluation of the nursing workforce since the pandemic.



# Purpose of Study

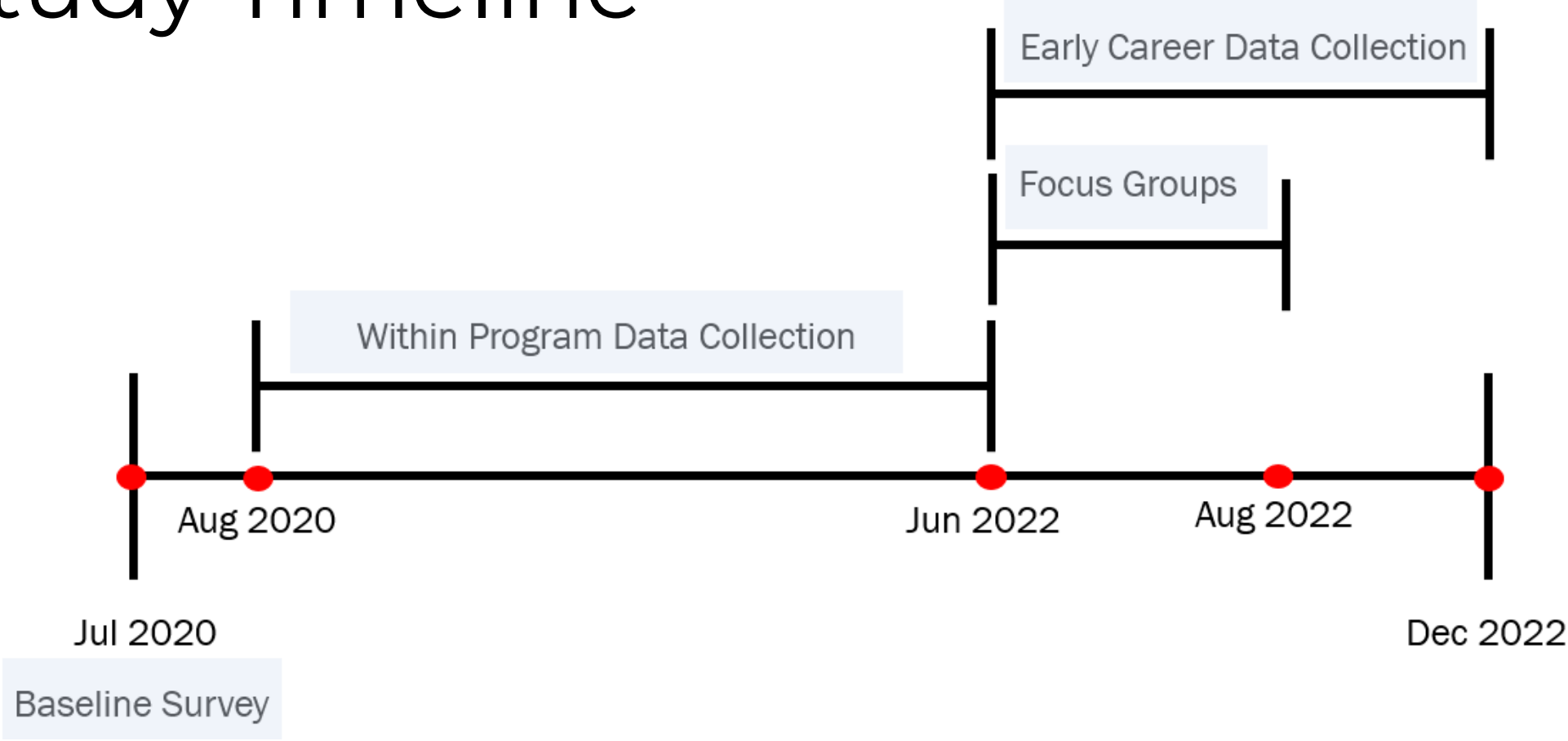
To assess the impact of institutional, academic, and demographic characteristics on prelicensure nursing students' academic, initial postgraduation, and early career outcomes during the COVID-19 pandemic.

# Prelicensure RN Education

- **51** programs
- **27** U.S. states
- **1,100+** participants



# Study Timeline





# Mixed Methods Approach

- **Methods:** Survey; Focus Groups
- **Data Collection:** Qualtrics, Zoom
- **Survey Analysis:** Detailed descriptive; graphical depiction of summary trends; non-parametric; Generalized Estimating Equation (GEE) models



# Assessing the Impact of the COVID-19 Pandemic on Nursing Education: A National Study of Prelicensure RN Programs

Martin, B., Kaminski-Ozturk, N., Smiley, R., Spector, N., Silvestre, J., Bowles, W., & Alexander, M. (2023). Assessing the impact of the COVID-19 pandemic on nursing education: A national study of prelicensure RN programs. *Journal of Nursing Regulation*, 14(1), S1-S67.

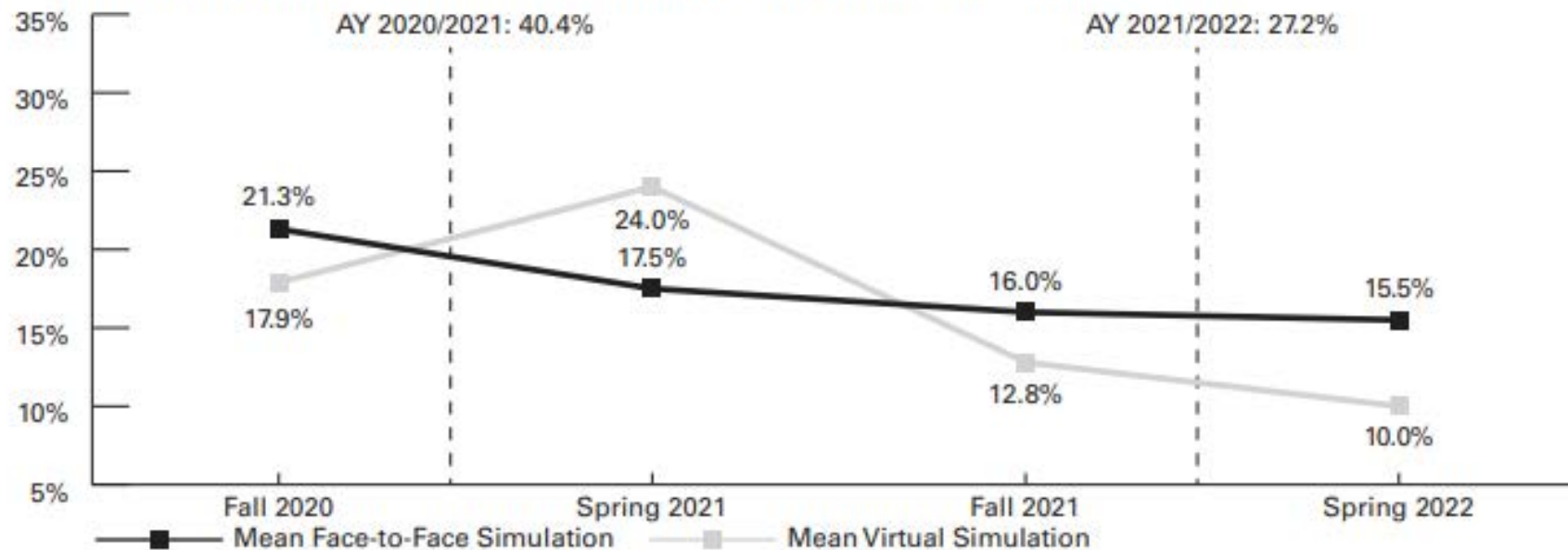
DOI: [https://doi.org/10.1016/S2155-8256\(23\)00041-8](https://doi.org/10.1016/S2155-8256(23)00041-8)

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# A Shifting Landscape Part 1

**Proportion of Clinical Experiences Completed Through Simulation by Term**



Note. AY = academic year.

# Clinical Results

## Clinical Learning Environment Comparison Survey (CLECS) 2.0 Results

Characteristics	CLECS 2.0 Sum Score	Characteristics	CLECS 2.0 Sum Score
Age	1.01 (0.16)	Fall 2021	90.96 (2.20)***
Sex		Spring 2022	95.42 (1.63)***
Female ( <i>Ref</i> )	86.14 (1.22)	Clinical Rotation	
Male	93.42 (3.38)	Adult medical surgical	84.76 (1.54)***
Hispanic		Advanced medical surgical ( <i>Ref</i> )	93.39 (2.02)
Hispanic	85.40 (2.92)	Pediatrics	88.22 (2.49)
Non-Hispanic ( <i>Ref</i> )	87.07 (1.25)	Community	81.67 (3.35)**
Race		Maternal-newborn	89.31 (2.40)
White ( <i>Ref</i> )	87.00 (1.26)	Mental health	87.05 (2.26)*
Non-White	85.16 (2.82)	Fundamentals	85.00 (1.76)***
Pell Grant Status		Region	
Yes	87.82 (1.86)	Urban ( <i>Ref</i> )	82.76 (1.95)
No ( <i>Ref</i> )	86.21 (1.47)	Suburban	91.14 (1.85)**
Course Modality		Rural	87.42 (2.10)
Virtual simulation ( <i>Ref</i> )	76.32 (1.64)	Other	81.50 (7.53)
In-person clinical placement	91.14 (1.13)***	Program Type	
Face-to-face simulation	89.31 (1.37)***	BSN ( <i>Ref</i> )	84.83 (1.48)
Term		ADN	88.81 (1.78)
Fall 2020 ( <i>Ref</i> )	80.73 (1.75)	Years in Operation ( <i>Unit = 10</i> )	1.13 (0.50)
Spring 2021	85.06 (1.57)*		

# Clinical Results

## Creighton Competency Evaluation Instrument (CCEI) Results by Student Characteristics

Student Characteristics	CCEI Sum Score
Age	1.09 (0.03)**
Sex	
Female ( <i>Ref</i> )	19.87 (0.23)
Male	19.14 (0.66)
Hispanic	
Hispanic	19.43 (0.61)
Non-Hispanic ( <i>Ref</i> )	19.83 (0.23)
Race	
White ( <i>Ref</i> )	20.04 (0.22)
Non-White	17.52 (0.77)**
Pell Grant Status	
Yes	19.95 (0.40)
No ( <i>Ref</i> )	19.77 (0.26)
Course Modality	
Virtual simulation ( <i>ref</i> )	17.62 (1.17)
In person clinical placement	19.84 (0.75)
Face-to-face simulation	20.28 (0.35)*
Term	
Fall 2020 ( <i>Ref</i> )	20.85 (0.62)
Spring 2021	20.13 (0.52)

Student Characteristics	CCEI Sum Score
Fall 2021	20.24 (0.64)
Spring 2022	18.37 (1.13)*
Clinical Rotation	
Adult medical surgical ( <i>ref</i> )	20.32 (0.25)
Advanced medical surgical	21.78 (0.24)***
Pediatrics	20.33 (0.54)
Community <sup>a</sup>	-
Maternal-newborn	21.58 (0.24)***
Mental	19.09 (0.67)
Fundamentals	19.64 (0.75)
Region	
Urban ( <i>Ref</i> )	18.56 (0.44)
Suburban	19.93 (0.30)**
Rural	20.65 (0.26)***
Other	22.20 (0.20)***
Program Type	
BSN ( <i>Ref</i> )	19.04 (0.31)
ADN	20.73 (0.24)***
Years in Operation ( <i>Unit</i> = 10)	1.28 (0.12)*

# Clinical Results

## Program Comparisons on Standardized Examination Scores

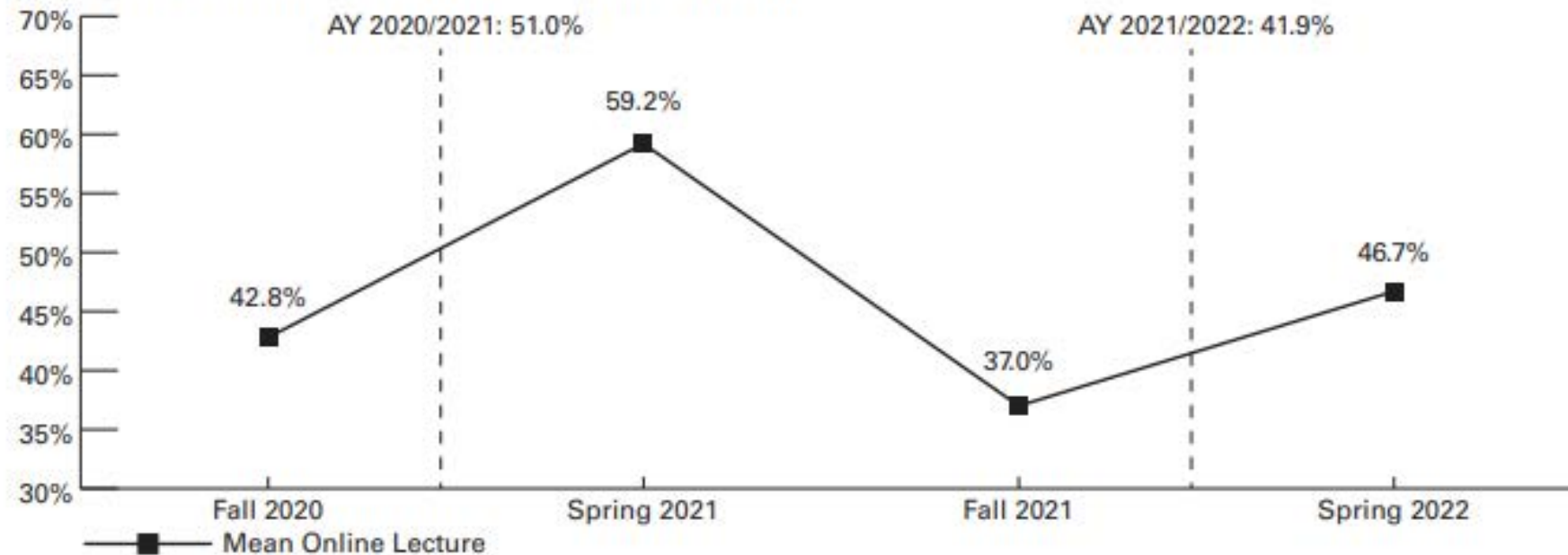
Faculty Outcomes	In-Program Scores	<i>p</i>	NCLEX Scores	<i>p</i>
<b>Program type</b>				
BSN	56.3% (39.2%–67.6%)	.47	89.5% (80.4%–92.7%)	.50
ADN	52.2% (42.9%–70.8%)		88.5% (83.3%–91.3%)	
<b>Region</b>				
Urban	66.7% (31.2%–82.5%)	.85	88.0% (80.3%–92.5%)	.57
Suburban	50.3% (44.8%–59.4%)		88.3% (82.3%–93.1%)	
Rural	52.0% (39.8%–59.0%)		91.1% (88.5%–92.7%)	
<b>Difficulty Arranging Clinical Rotations</b>				
Similar level of difficulty	52.2% (44.4%–77.9%)	.18	88.3% (82.3%–92.7%)	.97
Somewhat more difficult	62.5% (48.4%–66.7%)		88.5% (86.1%–92.7%)	
Much more difficult	38.1% (0.0%–52.0%)		85.1% (78.1%–94.9%)	
<b>Resources for Virtual Simulation</b>				
Maintaining same levels prior	52.2% (39.2%–66.7%)	.03	90.9% (75.9%–93.1%)	.51
No	39.8% (38.1%–52.0%)		87.5% (80.4%–90.7%)	
Yes	82.9% (63.0%–86.7%)		89.1% (83.1%–93.1%)	
<b>Initial Simulation (F) Increase</b>				
<15%	59.0% (39.2%–67.7%)	.49	90.9% (84.6%–92.7%)	.18
≥15%	50.3% (44.8%–70.5%)		88.5% (81.5%–91.3%)	
<b>Initial Virtual Simulation Increase</b>				
<14%	59.0% (38.1%–67.6%)	.31	89.9% (83.3%–92.7%)	.50
≥14%	52.1% (45.2%–77.9%)		88.7% (83.1%–92.5%)	
<b>Initial Online Lecture Increase</b>				
<61%	54.4% (39.8%–82.5%)	.21	90.8% (87.1%–92.9%)	.08
≥61%	53.8% (42.9%–66.7%)		87.7% (81.5%–91.3%)	
<b>Mean Simulation (F) Increase</b>				
<12.5%	39.8% (38.1%–59.0%)	.04	88.5% (80.0%–92.7%)	.34
≥12.5%	63.0% (45.2%–86.7%)		87.5% (83.3%–93.1%)	
<b>Mean Virtual Simulation Increase</b>				
<20%	66.7% (39.8%–86.7%)	.05	87.5% (75.9%–92.5%)	.25
≥20%	45.2% (39.2%–59.0%)		88.5% (80.3%–93.1%)	
<b>Mean Online Lecture Increase</b>				
<46.25%	54.1% (39.2%–62.5%)	.23	88.7% (83.3%–92.7%)	.47
≥46.25%	63.0% (45.2%–67.6%)		90.2% (84.6%–92.5%)	

# Clinical Results

<b>Program Comparisons on Aggregate First-Time NCLEX Pass Rates</b>			
Program Characteristics	First-Time NCLEX Pass Rate		<i>p</i>
	<80%	≥80%	
<b>Program Type</b>			
BSN	6 (21.4%)	22 (78.6%)	.24
ADN	2 (9.5%)	19 (90.5%)	
<b>Region</b>			
Urban	6 (26.1%)	17 (73.9%)	.31
Suburban	2 (12.5%)	14 (87.5%)	
Rural	0 (0%)	10 (100%)	
<b>Difficulty Arranging Clinical Rotations</b>			
Similar level of difficulty	1 (25.0%)	3 (75.0%)	.42
Somewhat more difficult	5 (22.7%)	17 (77.3%)	
Much more difficult	2 (10.0%)	18 (90.0%)	
<b>Resources for Virtual Simulation</b>			
Maintaining the same levels	2 (16.7%)	10 (83.3%)	.66
No	2 (28.6%)	5 (71.4%)	
Yes	4 (14.8%)	23 (85.2%)	
In-Program Scores <sup>a</sup>	62.5% (38.1%–63.0%)	52.2% (42.9%–70.8%)	.38
Years in Operation	65 (43–76)	54 (37–58)	.21
Full-time Faculty	24 (13–40)	11 (8–22)	.11
Required Clinical Hours	630 (150–675)	697 (550–750)	.07
Fall 2020 Student Enrollment	37 (20–109)	54 (30–97)	.40
Proportion of White Students	75.0% (63.0%–84.0%)	60.0% (36.5%–82.0%)	.06
Proportion of Female Students	80.0% (78.0%–90.0%)	88.0% (83.5%–92.5%)	.20
Initial Simulation (F) Increase	25.0% (15.5%–25.0%)	34.0% (20.0%–50.0%)	.07
Initial Virtual Simulation Increase	20.0% (15.0%–35.0%)	9.0% (0%–19.5%)	.04

# A Shifting Landscape Part 2

**Proportion of Lectures Completed Online by Term**



Note. AY = academic year.



# Lecture Results

**Students' Cognitive, Affective, and Psychomotor (CAP) Perceived Learning Scale Results**

Characteristics	Cognitive	Affective	Psychomotor	Sum
Age ( <i>Unit = 1</i> )	1.06 (0.03)*	1.03 (0.03)	1.08 (0.03)**	1.17 (0.08)*
Sex				
Female ( <i>Ref</i> )	12.07 (0.18)	12.89 (0.20)	12.86 (0.20)	37.82 (0.51)
Male	12.47 (0.52)	13.53 (0.74)	12.93 (0.53)	38.93 (1.63)
Hispanic				
Hispanic	12.38 (0.49)	13.16 (0.53)	13.18 (0.51)	38.72 (1.37)
Non-Hispanic ( <i>Ref</i> )	12.08 (0.18)	12.90 (0.21)	12.81 (0.20)	37.79 (0.51)
Race				
White ( <i>Ref</i> )	12.11 (0.46)	12.92 (0.21)	12.88 (0.21)	37.91 (0.53)
Non-white	11.99 (0.19)	12.85 (0.42)	12.57 (0.49)	37.40 (1.13)
Pell Grant Status				
Yes	12.63 (0.31)*	13.31 (0.34)	13.63 (0.26)**	39.57 (0.78)**
No ( <i>Ref</i> )	11.84 (0.20)	12.73 (0.23)	12.44 (0.25)	37.01 (0.59)
Course Modality				
Online ( <i>Ref</i> )	11.60 (0.27)	12.13 (0.30)	11.46 (0.36)	35.19 (0.76)
In person	12.14 (0.26)	13.44 (0.27)***	13.33 (0.27)***	38.91 (0.66)***
Hybrid	12.39 (0.23)**	13.05 (0.27)**	13.38 (0.23)***	38.82 (0.63)***

# Lecture Results

## Student Course Engagement Questionnaire Modified (SCEQ-M) Results

Characteristics	Applied	Goal-Oriented	Self-Disciplined	Interactive	Sum
Age	1.06 (0.02)***	1.01 (0.02)	1.13 (0.04)**	1.10 (0.04)**	1.67 (0.34)**
Sex					
Female ( <i>Ref</i> )	12.46 (0.14)	22.12 (0.17)	22.96 (0.31)	19.50 (0.26)	93.68 (0.92)
Male	12.53 (0.47)	21.75 (0.58)	22.71 (0.87)	20.03 (0.72)	93.51 (2.99)
Hispanic					
Hispanic	12.41 (0.50)	21.63 (0.50)	23.20 (0.85)	19.61 (0.62)	93.28 (2.70)
Non-Hispanic ( <i>Ref</i> )	12.47 (0.14)	22.16 (0.17)	22.91 (0.31)	19.56 (0.27)	93.78 (0.92)
Race					
White ( <i>Ref</i> )	12.21 (0.38)	22.19 (0.18)	23.00 (0.31)	19.62 (0.27)	93.98 (0.95)
Non-White	12.47 (0.15)	21.45 (0.43)	22.38 (0.77)	18.92 (0.67)	91.07 (2.40)
Pell Grant Status					
Yes	12.69 (0.23)	22.06 (0.30)	23.62 (0.51)	20.17 (0.41)	95.39 (1.59)
No ( <i>Ref</i> )	12.34 (0.17)	22.11 (0.20)	22.58 (0.34)	19.24 (0.30)	92.80 (1.03)
Course Modality					
Online ( <i>Ref</i> )	12.32 (0.23)	22.09 (0.24)	22.26 (0.39)	18.62 (0.37)	91.56 (1.24)
In person	12.50 (0.20)	22.28 (0.24)	23.04 (0.43)	19.95 (0.42)**	94.73 (1.31)**
Hybrid	12.48 (0.17)	21.93 (0.24)	23.25 (0.37)*	19.79 (0.29)**	94.06 (1.16)

# Lecture Results

**Program Comparisons on Standardized Examination Scores**

Faculty Outcomes	In-Program Scores	<i>p</i>	NCLEX Scores	<i>p</i>
<b>Program type</b>				
BSN	56.3% (39.2%–67.6%)	.47	89.5% (80.4%–92.7%)	.50
ADN	52.2% (42.9%–70.8%)		88.5% (83.3%–91.3%)	
<b>Region</b>				
Urban	66.7% (31.2%–82.5%)	.85	88.0% (80.3%–92.5%)	.57
Suburban	50.3% (44.8%–59.4%)		88.3% (82.3%–93.1%)	
Rural	52.0% (39.8%–59.0%)		91.1% (88.5%–92.7%)	
<b>Difficulty Arranging Clinical Rotations</b>				
Similar level of difficulty	52.2% (44.4%–77.9%)	.18	88.3% (82.3%–92.7%)	.97
Somewhat more difficult	62.5% (48.4%–66.7%)		88.5% (86.1%–92.7%)	
Much more difficult	38.1% (0.0%–52.0%)		85.1% (78.1%–94.9%)	
<b>Resources for Virtual Simulation</b>				
Maintaining same levels prior	52.2% (39.2%–66.7%)	.03	90.9% (75.9%–93.1%)	.51
No	39.8% (38.1%–52.0%)		87.5% (80.4%–90.7%)	
Yes	82.9% (63.0%–86.7%)		89.1% (83.1%–93.1%)	
<b>Initial Simulation (F) Increase</b>				
<15%	59.0% (39.2%–67.7%)	.49	90.9% (84.6%–92.7%)	.18
≥15%	50.3% (44.8%–70.5%)		88.5% (81.5%–91.3%)	
<b>Initial Virtual Simulation Increase</b>				
<14%	59.0% (38.1%–67.6%)	.31	89.9% (83.3%–92.7%)	.50
≥14%	52.1% (45.2%–77.9%)		88.7% (83.1%–92.5%)	
<b>Initial Online Lecture Increase</b>				
<61%	54.4% (39.8%–82.5%)	.21	90.8% (87.1%–92.9%)	.08
≥61%	53.8% (42.9%–66.7%)		87.7% (81.5%–91.3%)	
<b>Mean Simulation (F) Increase</b>				
<12.5%	39.8% (38.1%–59.0%)	.04	88.5% (80.0%–92.7%)	.34
≥12.5%	63.0% (45.2%–86.7%)		87.5% (83.3%–93.1%)	
<b>Mean Virtual Simulation Increase</b>				
<20%	66.7% (39.8%–86.7%)	.05	87.5% (75.9%–92.5%)	.25
≥20%	45.2% (39.2%–59.0%)		88.5% (80.3%–93.1%)	
<b>Mean Online Lecture Increase</b>				
<46.25%	54.1% (39.2%–62.5%)	.23	88.7% (83.3%–92.7%)	.47
≥46.25%	63.0% (45.2%–67.6%)		90.2% (84.6%–92.5%)	

# Lecture Results

Faculty Outcomes	In-Program Scores	<i>p</i>	NCLEX Scores	<i>p</i>
Total Clinical Courses Changed				
<50%	56.3% (39.2%–77.9%)	.43	90.8% (80.3%–92.7%)	.28
≥50%	58.7% (44.8%–67.2%)		87.9% (81.6%–93.1%)	
Total Didactic Courses Changed				
<37.5%	48.6% (39.5%–74.4%)	.27	92.6% (86.1%–94.2%)	.003
≥37.5%	62.8% (45.6%–67.2%)		86.7% (78.7%–89.9%)	

# Workforce Pipeline

- Clinical preparedness of new nurse graduates
- Practice and diagnostic proficient of early career nurses



# Clinical Results

## New Nurse Graduate Performance Survey Results by Program Characteristics

Program Characteristics	Clinical Knowledge	Technical Skills	Critical Thinking	Communication	Professionalism	Management of Responsibilities
<b>Program Type</b>						
BSN	3.84 (0.07)	4.86 (0.09)	4.66 (0.09)	4.72 (0.08)	5.10 (0.07)	4.59 (0.09)
ADN	3.97 (0.08)	4.95 (0.09)	4.90 (0.09)	4.88 (0.11)	5.19 (0.08)	4.84 (0.09)
<b>School Region</b>						
Urban	3.87 (0.09)	4.80 (0.13)	4.66 (0.12)	4.64 (0.10)	5.03 (0.09)	4.52 (0.13)
Suburban	3.90 (0.08)	4.92 (0.10)	4.74(0.10)	4.79 (0.10)	5.19 (0.08)	4.71 (0.11)
Rural	3.92 (0.09)	5.02 (0.08)	4.95 (0.09)	5.02 (0.11)	5.29 (0.09)	4.96 (0.08)**
<b>Years in Operation</b>						
<54 y	3.87 (0.07)	4.88 (0.09)	4.79 (0.08)	4.74 (0.08)	5.13 (0.07)	4.67 (0.09)
≥54 y	3.93 (0.07)	4.93 (0.07)	4.68 (0.08)	4.87 (0.08)	5.17 (0.07)	4.72 (0.10)
<b>Initial Simulation (F) Increase</b>						
<15%	4.01 (0.08)	5.06 (0.08)	4.86 (0.09)	4.98 (0.09)	5.27 (0.08)	4.86 (0.09)
≥15%	3.82 (0.07)	4.78 (0.09)*	4.69 (0.09)	4.65 (0.08)**	5.05 (0.07)*	4.56 (0.10)*
<b>Initial Virtual Simulation Increase</b>						
<14%	3.86 (0.06)	4.81 (0.10)	4.68 (0.10)	4.78 (0.09)	5.12 (0.08)	4.63 (0.11)
≥14%	3.92 (0.06)	4.98 (0.08)	4.84 (0.08)	4.79 (0.09)	5.16 (0.06)	4.73 (0.09)
<b>Initial Online Lecture Increase</b>						
<61%	3.86 (0.07)	4.90 (0.08)	4.76 (0.09)	4.81 (0.07)	5.13 (0.06)	4.67 (0.09)
≥61%	3.95 (0.08)	4.90 (0.10)	4.76 (0.10)	4.74 (0.11)	5.17 (0.09)	4.70 (0.11)
<b>Mean Simulation (F) Increase</b>						
<12.5%	3.84 (0.07)	5.01 (0.08)	4.83 (0.09)	4.84 (0.09)	5.17 (0.07)	4.76 (0.10)
≥12.5%	3.92 (0.09)	4.81 (0.12)	4.75 (0.10)	4.70 (0.10)	5.16 (0.08)	4.63 (0.12)
<b>Mean Virtual Simulation Increase</b>						
<20%	3.83 (0.09)	5.00 (0.08)	4.90 (0.08)	4.83 (0.10)	5.22 (0.07)	4.85 (0.08)
≥20%	3.93 (0.07)	4.79 (0.12)	4.65 (0.12)*	4.69 (0.09)	5.09 (0.08)	4.51 (0.13)*
<b>Mean Online Lecture Increase</b>						
<46.25%	3.91 (0.07)	5.05 (0.07)	4.89 (0.07)	4.99 (0.08)	5.27 (0.07)	4.88 (0.07)
≥46.25%	3.87 (0.09)	4.71 (0.12)*	4.70 (0.11)	4.66 (0.10)*	5.07 (0.09)	4.54 (0.12)*
<b>Total Clinical Courses D</b>						
<50%	3.91 (0.08)	5.08 (0.08)	4.83 (0.11)	4.94 (0.09)	5.24 (0.07)	4.78 (0.11)
≥50%	3.87 (0.07)	4.81 (0.09)*	4.74 (0.08)	4.70 (0.08)*	5.10 (0.07)	4.64 (0.09)
<b>Total Didactic Courses D</b>						
<37.5%	4.00 (0.07)	5.07 (0.08)	4.91 (0.09)	4.94 (0.08)	5.26 (0.07)	4.82 (0.09)
≥37.5%	3.79 (0.08)*	4.72 (0.11)**	4.64(0.10)*	4.66 (0.09)*	5.02 (0.08)*	4.57 (0.11)

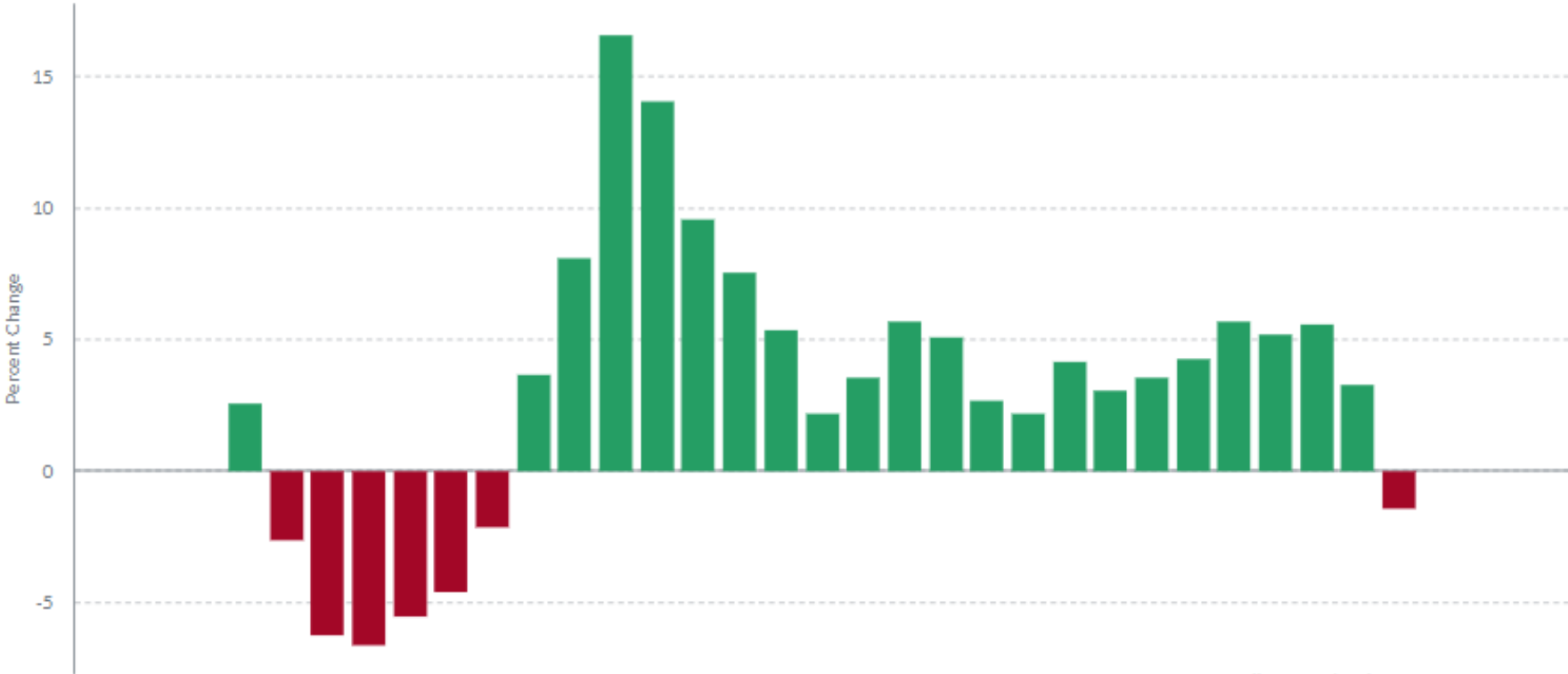
# Lecture Results

## New Nurse Graduate Performance Survey Results by Program Characteristics

Program Characteristics	Clinical Knowledge	Technical Skills	Critical Thinking	Communication	Professionalism	Management of Responsibilities
<b>Program Type</b>						
BSN	3.84 (0.07)	4.86 (0.09)	4.66 (0.09)	4.72 (0.08)	5.10 (0.07)	4.59 (0.09)
ADN	3.97 (0.08)	4.95 (0.09)	4.90 (0.09)	4.88 (0.11)	5.19 (0.08)	4.84 (0.09)
<b>School Region</b>						
Urban	3.87 (0.09)	4.80 (0.13)	4.66 (0.12)	4.64 (0.10)	5.03 (0.09)	4.52 (0.13)
Suburban	3.90 (0.08)	4.92 (0.10)	4.74(0.10)	4.79 (0.10)	5.19 (0.08)	4.71 (0.11)
Rural	3.92 (0.09)	5.02 (0.08)	4.95 (0.09)	5.02 (0.11)	5.29 (0.09)	4.96 (0.08)**
<b>Years in Operation</b>						
<54 y	3.87 (0.07)	4.88 (0.09)	4.79 (0.08)	4.74 (0.08)	5.13 (0.07)	4.67 (0.09)
≥54 y	3.93 (0.07)	4.93 (0.07)	4.68 (0.08)	4.87 (0.08)	5.17 (0.07)	4.72 (0.10)
<b>Initial Simulation (F) Increase</b>						
<15%	4.01 (0.08)	5.06 (0.08)	4.86 (0.09)	4.98 (0.09)	5.27 (0.08)	4.86 (0.09)
≥15%	3.82 (0.07)	4.78 (0.09)*	4.69 (0.09)	4.65 (0.08)**	5.05 (0.07)*	4.56 (0.10)*
<b>Initial Virtual Simulation Increase</b>						
<14%	3.86 (0.06)	4.81 (0.10)	4.68 (0.10)	4.78 (0.09)	5.12 (0.08)	4.63 (0.11)
≥14%	3.92 (0.06)	4.98 (0.08)	4.84 (0.08)	4.79 (0.09)	5.16 (0.06)	4.73 (0.09)
<b>Initial Online Lecture Increase</b>						
<61%	3.86 (0.07)	4.90 (0.08)	4.76 (0.09)	4.81 (0.07)	5.13 (0.06)	4.67 (0.09)
≥61%	3.95 (0.08)	4.90 (0.10)	4.76 (0.10)	4.74 (0.11)	5.17 (0.09)	4.70 (0.11)
<b>Mean Simulation (F) Increase</b>						
<12.5%	3.84 (0.07)	5.01 (0.08)	4.83 (0.09)	4.84 (0.09)	5.17 (0.07)	4.76 (0.10)
≥12.5%	3.92 (0.09)	4.81 (0.12)	4.75 (0.10)	4.70 (0.10)	5.16 (0.08)	4.63 (0.12)
<b>Mean Virtual Simulation Increase</b>						
<20%	3.83 (0.09)	5.00 (0.08)	4.90 (0.08)	4.83 (0.10)	5.22 (0.07)	4.85 (0.08)
≥20%	3.93 (0.07)	4.79 (0.12)	4.65 (0.12)*	4.69 (0.09)	5.09 (0.08)	4.51 (0.13)*
<b>Mean Online Lecture Increase</b>						
<46.25%	3.91 (0.07)	5.05 (0.07)	4.89 (0.07)	4.99 (0.08)	5.27 (0.07)	4.88 (0.07)
≥46.25%	3.87 (0.09)	4.71 (0.12)*	4.70 (0.11)	4.66 (0.10)*	5.07 (0.09)	4.54 (0.12)*
<b>Total Clinical Courses D</b>						
<50%	3.91 (0.08)	5.08 (0.08)	4.83 (0.11)	4.94 (0.09)	5.24 (0.07)	4.78 (0.11)
≥50%	3.87 (0.07)	4.81 (0.09)*	4.74 (0.08)	4.70 (0.08)*	5.10 (0.07)	4.64 (0.09)
<b>Total Didactic Courses D</b>						
<37.5%	4.00 (0.07)	5.07 (0.08)	4.91 (0.09)	4.94 (0.08)	5.26 (0.07)	4.82 (0.09)
≥37.5%	3.79 (0.08)*	4.72 (0.11)**	4.64(0.10)*	4.66 (0.09)*	5.02 (0.08)*	4.57 (0.11)

# AACN Research

Enrollment Changes in Entry-Level Baccalaureate Nursing Programs 1994-2022



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# Burnout among academic nursing faculty

Zangaro, G. A., Rosseter, R., Trautman, D., & Leaver, C.  
(2023). Burnout among academic nursing faculty. *Journal of Professional Nursing*, 48, 54-59.

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# Key Takeaways

- 1) The effects of the pandemic are widespread and multiple.
- 2) Shifts to virtual clinical simulation and online lecture delivery had a deleterious effect on student outcomes.
- 3) There was good adherence to evidence-based guidelines for face-to-face simulation.

# Questions & Comments

