

**As Well Prepared, and Often Better:  
Surveying the Work Performance of Excelsior College  
Associate Degree in Nursing Graduates**

***Prepared for:***

Excelsior College  
7 Columbia Cir  
Albany, NY 12203-5159

***Authors:***

Li Gwatkin  
Mary P. Hancock  
Harold A. Javitz, Ph.D.

***Contributors:***

Katherine Johnston  
Christopher Ordowich, Ph.D.

November 25, 2009





## Table of Contents

<b>I. EXECUTIVE SUMMARY .....</b>	<b>1</b>
A. STUDY OBJECTIVE AND BACKGROUND .....	1
B. RESEARCH DESIGN AND METHODOLOGY.....	3
<b>II. STUDY OBJECTIVE AND BACKGROUND .....</b>	<b>9</b>
A. EXCELSIOR COLLEGE ASSOCIATE DEGREE IN NURSING PROGRAM .....	9
B. PAST STUDIES.....	12
C. THE CHALLENGES OF SURVEYING NURSE SUPERVISORS WITH DIRECT EXPERIENCE OF EXCELSIOR COLLEGE ADN GRADUATES .....	12
<b>III. RESEARCH DESIGN AND METHODOLOGY .....</b>	<b>13</b>
A. RESEARCH DESIGN .....	13
B. SURVEY INSTRUMENT DEVELOPMENT.....	14
C. SURVEY PROCESS .....	15
<b>IV. STUDY RESULTS .....</b>	<b>21</b>
A. OVERALL PERCEPTIONS .....	21
B. NURSING CAPABILITIES .....	30
<b>V. CONCLUSIONS .....</b>	<b>40</b>
<b>VI. REFERENCES .....</b>	<b>40</b>
<b>APPENDIX A: EMAIL TO EXCELSIOR COLLEGE GRADUATES .....</b>	<b>1</b>
<b>APPENDIX B: TELEPHONE SCRIPT FOR EXCELSIOR COLLEGE GRADUATES.....</b>	<b>4</b>
<b>APPENDIX C: EMAIL TO GRADUATE-SOURCE NURSE SUPERVISORS.....</b>	<b>7</b>
<b>APPENDIX D: TELEPHONE SCRIPT FOR GRADUATE-SOURCE NURSE SUPERVISORS .....</b>	<b>10</b>
<b>APPENDIX E: NURSING SUPERVISOR QUESTIONNAIRE.....</b>	<b>13</b>
<b>APPENDIX F: CROSS TABULATIONS .....</b>	<b>18</b>
<b>APPENDIX G: MEAN RATINGS, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS - PANEL SUPERVISORS .....</b>	<b>30</b>
<b>APPENDIX H: MEAN RATINGS, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS - GRADUATE-SOURCE SUPERVISORS .....</b>	<b>32</b>
<b>APPENDIX I: PERCENT SAME OR HIGHER, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS - PANEL SUPERVISORS.....</b>	<b>34</b>
<b>APPENDIX J: PERCENT SAME OR HIGHER, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS – GRADUATE-SOURCE SUPERVISORS .....</b>	<b>38</b>





## List of Tables

<b>Table 1: Excelsior College ADN Graduate Sample .....</b>	<b>18</b>
<b>Table 2: Excelsior College ADN Eligible Graduate Sample.....</b>	<b>18</b>
<b>Table 3: Excelsior College ADN Graduate Nurse Supervisor Sample.....</b>	<b>19</b>
<b>Table 4: National Panel Nurse Supervisor Sample.....</b>	<b>19</b>
<b>Table 5: Would you recommend the Excelsior College ADN Program to others?.....</b>	<b>25</b>
<b>Table 6: Ratings of Excelsior College ADNs by Nurse Supervisors Who Cited Clinical Weaknesses .....</b>	<b>30</b>
<b>Table 7: Critical Thinking Capabilities of Excelsior College ADN Graduates .....</b>	<b>33</b>
<b>Table 8: Nursing Competencies of Excelsior College ADN Graduates .....</b>	<b>36</b>
<b>Table 9: Overall Communications Skills of Excelsior College ADN Graduates .....</b>	<b>39</b>

## List of Figures

<b>Figure 1: Study Design .....</b>	<b>4</b>
<b>Figure 2: Selected Survey Findings .....</b>	<b>6</b>
<b>Figure 3: Excelsior College ADN Graduates’ Strengths.....</b>	<b>7</b>
<b>Figure 4: Excelsior College ADN Graduates’ Deficiencies .....</b>	<b>8</b>
<b>Figure 5: Study Design .....</b>	<b>14</b>
<b>Figure 6: Nurse Supervisor Familiarity with Excelsior College ADN Graduate.....</b>	<b>22</b>
<b>Figure 7: Nurse Supervisor Ratings of Overall Clinical Competence of Excelsior College ADN Graduates .....</b>	<b>23</b>
<b>Figure 8: Would you hire another Excelsior College ADN graduate? .....</b>	<b>23</b>
<b>Figure 9: Nurse Supervisor Ratings of Overall Excelsior College ADN Program Quality .....</b>	<b>24</b>
<b>Figure 10: Would you recommend the Excelsior College ADN Program to others? .....</b>	<b>25</b>
<b>Figure 11: Excelsior College ADN Graduates’ Strengths.....</b>	<b>26</b>
<b>Figure 12: Excelsior College ADN Graduates’ Deficiencies .....</b>	<b>28</b>
<b>Figure 13: Nurse Supervisor Ratings of Excelsior College ADN Graduates’ Critical Thinking Abilities.....</b>	<b>32</b>
<b>Figure 14: Nurse Supervisor Ratings of Excelsior college ADN Graduates’ Nursing Competencies.....</b>	<b>35</b>
<b>Figure 15: Nurse Supervisor Ratings of Excelsior College ADN Graduates’ Communications Skills .....</b>	<b>38</b>





## List of Acronyms

ADN	Associate degree in nursing
CPNE	Clinical Performance in Nursing Examination (administered by Excelsior College)
LPN	Licensed practical nurse
LVN	Licensed vocational nurse
NCLEX-RN	National Council Licensure Examination-Registered Nurse (administered by the NCSBN)
NCSBN	National Council of State Boards of Nursing
RN	Registered nurse

## Acknowledgments

We would like to thank Patricia Edwards, Chia-Huan Ho and Mary Beth Hanner at Excelsior College for providing us with access to Excelsior student data and insights into the workings of Excelsior College's associate degree in nursing program.

The SRI Project Team



## I. EXECUTIVE SUMMARY

### A. STUDY OBJECTIVE AND BACKGROUND

The Excelsior College School of Nursing's associate degree in nursing (ADN) faces challenges to the validity of its model by various state boards of nursing. Excelsior's competency-based model of nursing education, which has a 35 year history and 36,000 graduates, is being called into question by select boards of nursing, which are considering restricting or have restricted licensing of registered nurses to those who have been educated using the traditional apprenticeship model.

The National Council of State Boards of Nursing (NCSBN) has recommended evidence-based research to support the rules and regulations of boards of nursing that are intended to govern safe and effective entry to the field of nursing. This study seeks to gather evidence that will measure Excelsior College's ADN program against more traditional associate degree programs by asking nurse supervisors to rate the clinical competency of recent Excelsior College ADN graduates as compared to traditionally prepared ADNs.

#### **Excelsior College Associate Degree in Nursing**

In an environment where healthcare providers struggle to fill RN positions and the nursing education system struggles to educate adequate numbers of RN candidates, Excelsior College provides a unique assessment-based educational model for candidates with ***significant prior clinical experience*** who wish to pursue RN licensure via an associate degree.

Students must pass eight nursing theory examinations and one focused clinical competencies assessment, which assesses students' ability to perform a head-to-toe patient assessment, to manage multiple patients, and to work in an interdisciplinary team. Finally, students must pass the culminating Clinical Performance in Nursing Examination (CPNE), which is considered to be the capstone clinical requirement for the associate degree.

The CPNE is a two-and-a-half day assessment of clinical competencies, designed by nursing faculty who hold master's and doctoral degrees, to assess essential clinical content of the curriculum not measurable by a theory examination. During the examination, candidates implement nursing care while their performance is scored by an expert clinician acting as an examiner, not a teacher. Once candidates successfully pass the CPNE, they are eligible to sit for the National Council Licensure Examination - Registered Nurse (NCLEX-RN) administered by the NCSBN.

To assist students to complete this rigorous program of study, Excelsior College offers extensive advising services. Students have access to an array of learning resources such as faculty-led online conferences, workshops, faculty-facilitated chats and numerous print-based and media-rich study materials.

Excelsior College's theory examinations are widely accepted and incorporated into traditional approaches to nursing education. Yet the idea of a clinical performance examination – Excelsior College's CPNE – in lieu of time spent in the clinical environment under the close supervision of nurse educators, continues to be met with skepticism. This is because it is difficult to evaluate the CPNE as few common points currently exist on which to compare it to required time spent under clinical supervision.

One readily available point of comparison is that, to achieve RN licensure, all candidates must ultimately pass the NCLEX-RN. According to a 2007 article in *The Business Review*<sup>1</sup>, over the previous four years Excelsior College graduates have an 89.4 percent passing rate on the NCLEX-RN for first time takers in comparison to 86.6% for all non-Excelsior College students. However, this result has been deemed insufficiently convincing by boards of nursing in several states.

The substantive bases of these emerging objections to Excelsior College's graduates range from direct questions about academic preparation, as in the case of the California Board of Registered Nurses, to boards' interpretation of state legislation regarding educational credibility of distance learning programs, as in the cases of Georgia and Virginia.

As a result of some state boards' actions, new Excelsior College graduates can no longer obtain RN licensure in states with clinical rotation requirements even though they have met the requirements of Excelsior College and passed the NCLEX-RN examination. In other states, Excelsior College graduates are not allowed to sit for the NCLEX-RN examination without meeting the state's required clinical rotations. The principal objection posed to Excelsior College is that its CPNE examination fails to test for critical skills that would be acquired through required hours of clinical rotations or preceptorship.

However, Excelsior College students are required to have some form of health care experience prior to enrolling in the program. The majority of their students are already licensed practical or vocational nurses (LVN/LPNs), paramedics or military corpsmen, and have, on average, ten years of clinical experience. This experiential requirement distinguishes Excelsior College students

---

<sup>1</sup> <http://www.bizjournals.com/albany/stories/2007/02/19/focus1.html>.

from students at traditional nursing schools who can be admitted without any hospital or health care experience.

To explore the issues facing the Excelsior College ADN program, SRI conducted two surveys of nurse supervisors of Excelsior College ADN graduates. Given the difficulty of comparing Excelsior College's program to other ADN programs, researchers asked nurse supervisors for their ratings of graduates' performance as newly-licensed RNs relative to graduates of other programs.

## **B. RESEARCH DESIGN AND METHODOLOGY**

### **Research Design**

The uniquely nationwide nature of Excelsior College's program (which has produced roughly 36,000 graduates across a national workforce of 2.5 million registered nurses), and the relatively small number of nurse supervisors (roughly 8 percent of the total nursing workforce) create the situation of searching for the proverbial needle in a haystack. If one attempts to focus on supervisors familiar with the roughly 4,700 Excelsior College students who graduated with ADNs more recently, between 2006 and 2008, the task becomes even more challenging. This issue, combined with typically low response rates from busy nurse-supervisors and other health professionals, presents a challenge.

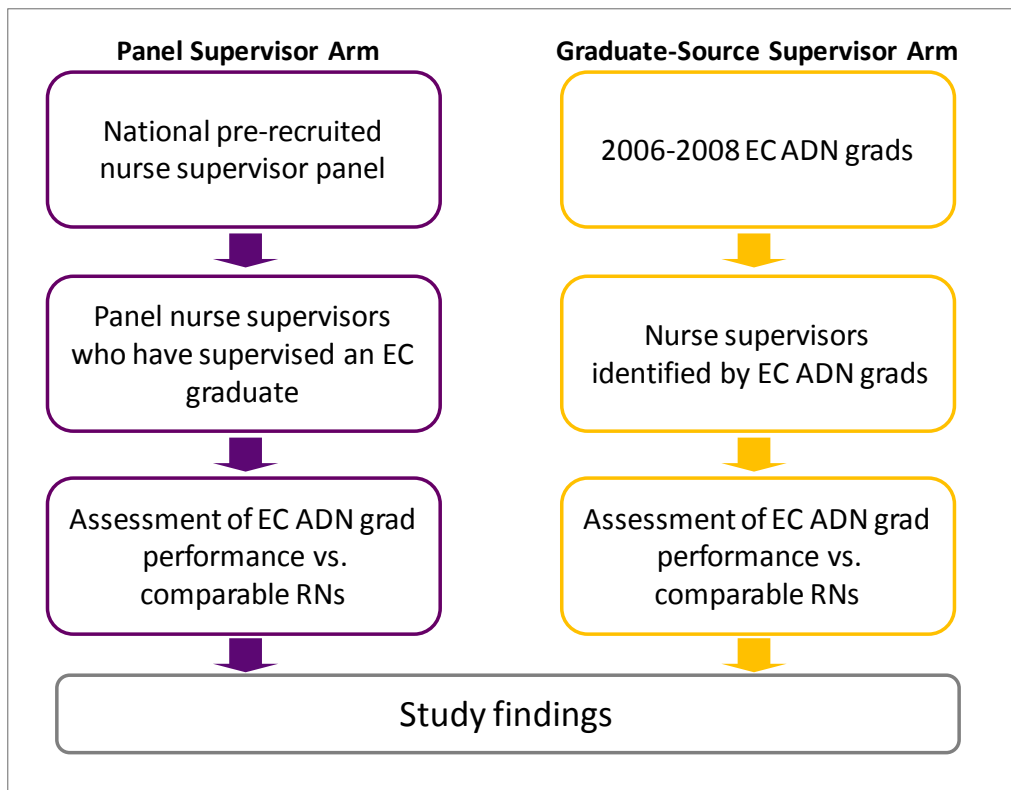
In the past, Excelsior College has used evaluations by nurse supervisors to measure on-the-job performance of Excelsior College ADN graduates. However, response rates have been low, and there has been concern that the methodology used may bias survey responses. Excelsior College ADNs have been asked for permission to contact their nurse supervisors. Intuitively, a low-performing graduate may be less willing to allow contact with a supervisor who may evaluate him or her negatively; there is thus concern that survey results may be overly positive.

To address this issue, this study used a two-armed survey design to collect data from nurse supervisors. For purposes of comparison, SRI first surveyed nurse supervisors familiar with recent Excelsior College ADN graduates identified by contacting recent Excelsior College ADN graduates, in a process similar to previous surveys conducted by Excelsior College.



A second approach was also devised to survey a group of nurse supervisors identified and accessed through a pre-recruited research panel of health professionals composed of employees from a range of hospitals and healthcare facilities across the country.<sup>2</sup> While more difficult and expensive to identify in large numbers, these nurse supervisors may be less likely to exhibit a positive bias when evaluating Excelsior College ADN graduates.

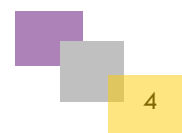
**Figure 1: Study Design**



### **Response Rates**

SRI surveyed 4,767 **Excelsior College ADN graduates** from January 2006 through December 2008. Of these, 634 provided contact information and permission to contact their nurse supervisor, for a response rate of 15 percent among those eligible for the study. Of 634 **graduate-source nurse supervisors** contacted, 590 had a valid email or phone number and 315 completed the questionnaire, for a response rate of 53 percent among those eligible for the study.

<sup>2</sup> e-Rewards®Healthcare Professional Panel, [http://www.e-rewardsresearch.com/eri\\_m\\_panelsHealthcareRsch.htm](http://www.e-rewardsresearch.com/eri_m_panelsHealthcareRsch.htm).





Of 3,660 *panel nurses* contacted, 1,084 (30%) clicked to enter the web-based questionnaire. Of those entering, 383 dropped out before completing the screening, 596 were screened out, and 105 identified themselves as nurse supervisors familiar with the performance of an Excelsior College ADN graduate, yielding a 10 percent incidence rate. All 105 eligible nurse supervisors completed the questionnaire.

### **Study Results**

Overall, the results of both surveys reflect favorably on the competency of Excelsior College ADN graduates relative to graduates from other nursing programs. The comparisons of the two surveys show that there is a slight positive bias from surveying just graduate-source supervisors, but overall, these differences have little impact on the overall qualitative results that Excelsior College ADN graduates are as well prepared, and often better prepared than graduates from traditional ADN nursing programs.

Both surveys asked respondents to rate the competency of Excelsior College ADN graduates as compared to more traditionally-educated ADN graduates. Ratings were made on a 1 to 7 Likert scale, with 7 being much better, 1 being much worse, and 4 being the same. Questions addressed overall clinical competency of graduates, overall program quality, and a series of specific nursing competencies.

Key survey findings, which were all statistically significant at the 0.05 level, include the following:

- Across the board, a strong majority of nurse supervisors in each group rated Excelsior College ADN graduates as same or better (4-7 on the 7-point scale) than traditionally-prepared ADN graduates.
- While percentages for panel supervisors were consistently lower than for graduate-source nurse supervisors, the majority of panel supervisors (and, in most cases, close to or more than three quarters) rated Excelsior College ADN graduates as the same or better compared to comparable ADN graduates. Percentages of graduate-source nurse supervisors who rated Excelsior College ADN graduate as the same or better were consistently in the high eighties to mid-nineties.

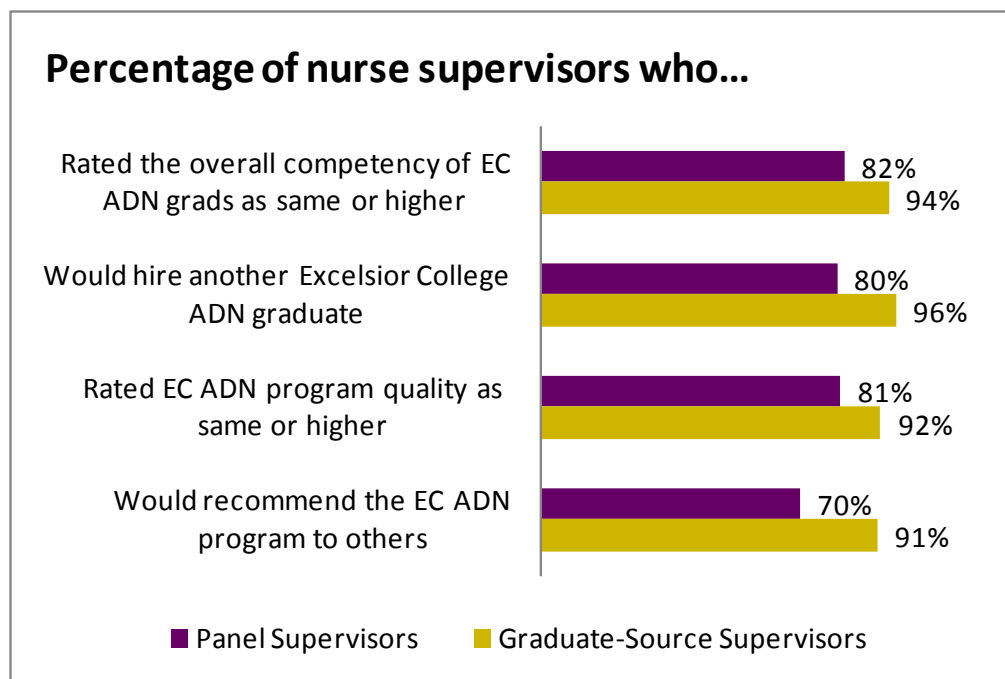
### **Overall Clinical Competency of Excelsior College ADN Graduates**

- The large majority of nurse supervisors surveyed (82 percent for panel supervisors, 94 percent for graduate-source supervisors) rated the overall clinical competence of Excelsior College ADN graduates as the same or higher than other associate degree nurses.
- Eighty percent of panel supervisors and 96 percent of graduate-source supervisors said, if given the opportunity, they would hire another Excelsior College ADN graduate.

### **Overall Quality of the Excelsior College ADN Program**

- Eighty-one percent of panel supervisors and 92 percent of graduate source supervisors rated the overall quality of the Excelsior College ADN program as same as or better than other programs.
- Forty-five percent of panel supervisors and 58 percent of graduate-source supervisors rated the Excelsior College ADN program as better than other associate degree nursing programs.
- A strong majority of each group surveyed also reported that they would recommend the Excelsior nursing program to others (70 percent of panel supervisors, 91 percent of graduate-source supervisors).

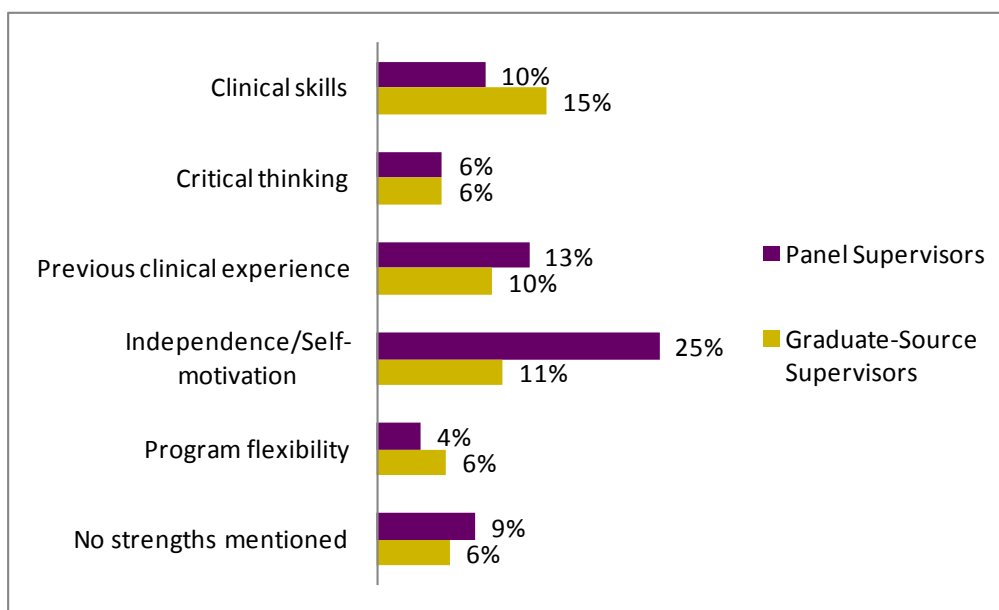
**Figure 2: Selected Survey Findings**



### Strengths and Deficiencies

- In both surveys, responses detailing strengths of Excelsior College graduates outnumbered those listing deficiencies when respondents were asked to comment on what areas, if any, they felt were strengths and deficiencies in Excelsior College ADN graduates.
- Most frequently mentioned **strengths** were independence and self-motivation, clinical skills, and previous experience.

**Figure 3: Excelsior College ADN Graduates' Strengths**

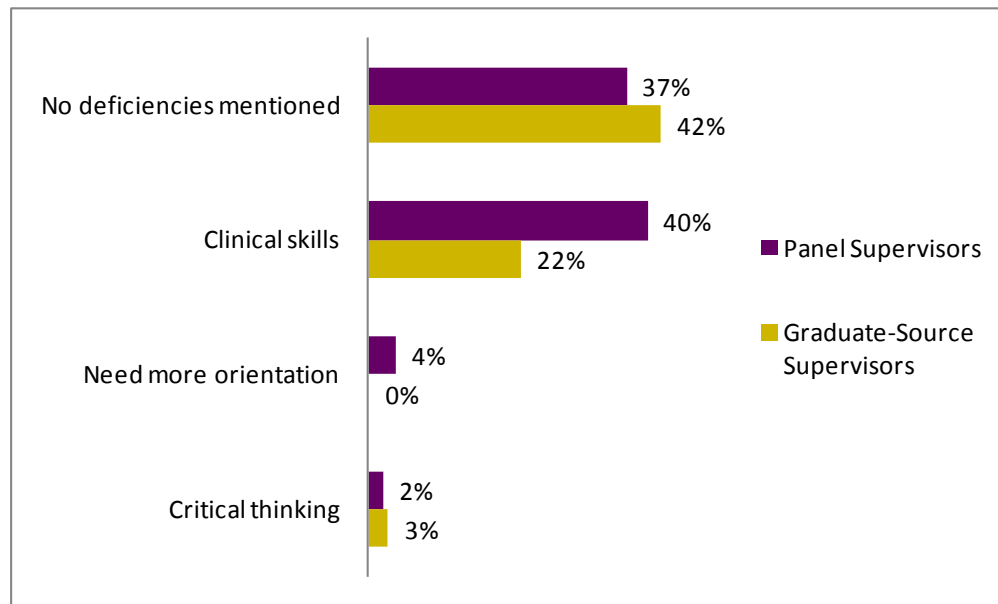


**Note:** Percentages of total respondent pool who mentioned a given strength. Respondents could mention several, one, or no strengths.

- **Deficiencies** most likely to be mentioned were regarding clinical or hands-on skills. Panel supervisors more often cited weaknesses in clinical skills than did graduate-source supervisors (40 percent vs. 22 percent, respectively). Other frequently cited deficiencies were the need for more orientation (4 percent of panel supervisors) and critical thinking skills (2 percent and 3 percent).



**Figure 4: Excelsior College ADN Graduates' Deficiencies**



**Note:** Percentage of total respondent pool who mentioned a given strength. Respondents could mention several, one, or no strengths.

- Interestingly, when we pooled all supervisors who cited clinical skills as a deficiency in Excelsior College ADN graduates, 77 percent of this group rated Excelsior graduates as the same or higher than other ADN graduates in overall clinical competency, and 81 percent would hire another Excelsior ADN graduate if given a chance. Similarly, 77 percent of this group rated the overall quality of the Excelsior College ADN program as same as or better than more traditional ADN programs, and 72 percent would recommend the Excelsior College ADN program to others.

### **Overall Nursing Capabilities**

- Nurse supervisors were asked to rate Excelsior College ADN graduates on various nursing capabilities, which were grouped into three areas: critical thinking abilities, expected nursing competencies, and communication skills.
- Graduate-source supervisors consistently gave higher ratings than did panel supervisors on all items; however, in both groups, the majority consistently rated Excelsior College ADN graduates same or better than comparable ADN graduates.

## II. STUDY OBJECTIVE AND BACKGROUND

The Excelsior College School of Nursing's associate degree in nursing (ADN) faces challenges to the validity of its model by various state boards of nursing. Excelsior's competency-based model of nursing education, which has a 35 year history and 36,000 graduates, is being called into question by select boards of nursing, which are considering restricting or have restricted licensing of registered nurses to those who have been educated using the traditional apprenticeship model.

The National Council of State Boards of Nursing (NCSBN) has recommended evidence-based research to support the rules and regulations of boards of nursing that are intended to govern safe and effective entry to the field of nursing. This study seeks to gather evidence that will measure Excelsior College's ADN program against more conventional associate degree programs.

Section II of this report will provide background on the Excelsior College Associate Degree in Nursing Program and the challenges it faces. Section III will describe the research design and methodology for this set of surveys. Sections IV and V will share results and conclusions.

### A. EXCELSIOR COLLEGE ASSOCIATE DEGREE IN NURSING PROGRAM

In an environment where healthcare providers struggle to fill RN positions and the nursing education system struggles to educate adequate numbers of RN candidates, Excelsior College provides a unique assessment-based educational model for candidates with significant prior healthcare experience who wish to pursue a RN licensure via an associate degree.

Students must pass eight nursing theory examinations and one focused clinical competencies assessment, which assesses students' ability to perform a head-to-toe patient assessment, to manage multiple patients, and to work in an interdisciplinary team. Finally, students must pass the culminating Clinical Performance in Nursing Examination (CPNE), which is considered to be the capstone clinical requirement for the associate degree.

The CPNE is a two-and-a-half day assessment of clinical competencies, designed by nursing faculty who hold master's and doctoral degrees, to assess essential clinical content of the curriculum not measurable by a theory examination. During the examination, candidates implement nursing care while their performance is scored by an expert clinician acting as an examiner, not a teacher.

The CPNE is designed to assess three essential, overlapping facets within the domain of nursing clinical practice, including:

1. application of the nursing process to demonstrate critical thinking;
2. implementation of critical elements within areas of care representing the entire universe of nursing care; and
3. use of specified psychomotor skills deemed essential to beginning nursing practice.

Once candidates successfully pass the CPNE, they are eligible to sit for the National Council Licensure Examination - Registered Nurse (NCLEX-RN).

To assist students to complete this rigorous program of study, Excelsior College offers extensive advising services. Students have access to an array of learning resources such as faculty-led online conferences, workshops, faculty-facilitated chats and numerous print-based and media-rich study materials.

The theoretical examinations aspect of Excelsior College's ADN program is widely accepted and incorporated into traditional approaches to nursing education. Yet the idea of a clinical performance examination – Excelsior College's CPNE – in lieu of time spent in the clinical environment under the close supervision of nurse educators, continues to be met with skepticism. However, few common points currently exist on which to compare required time spent under clinical supervision against the CPNE. There does not appear to be a clear consensus around the desired outcome measures of clinical experience within the context of an associate degree in nursing, and only Excelsior College students are assessed by the rigorous and time-intensive CPNE.

One readily available point of comparison is that, to achieve RN licensure, all candidates must ultimately pass the National Council of State Boards of Nursing's (NCSBN) licensure examination, the National Council Licensure Examination for Registered Nurses (NCLEX-RN). According to a 2007 article in *The Business Review*<sup>3</sup>, over the previous four years Excelsior College graduates have an 89.4 percent passing rate on the NCLEX-RN for first time takers in comparison to 86.6% for all non-Excelsior College students. However, this result has been deemed insufficiently convincing by boards of nursing in several states.

---

<sup>3</sup> <http://www.bizjournals.com/albany/stories/2007/02/19/focus1.html>

The substantive bases of these emerging objections to Excelsior College's graduates range from direct questions about academic preparation, as in the case of the California Board of Registered Nurses, to boards' interpretation of state legislation regarding educational credibility of distance learning programs, as in the cases of Georgia and Virginia. As a result of some state boards' actions, new Excelsior College graduates can no longer obtain RN licensure in states with clinical rotation requirements even though they have met the requirements of Excelsior College and passed the NCLEX-RN examination. In other states, Excelsior College graduates are not allowed to sit for the NCLEX-RN examination without meeting the state's required clinical rotations. The principal objection posed to Excelsior College is the argument that its CPNE examination fails to test for critical skills that would be acquired through required hours of clinical rotations or preceptorship.

However, Excelsior College students are required to have some form of health care experience prior to enrolling in the program.<sup>6</sup> The majority of their students are already licensed practical or vocational nurses (LVN/LPNs), paramedics or military corpsmen, and have, on average, ten years of clinical experience. This experiential requirement distinguishes Excelsior College students from students at traditional nursing schools who can be admitted without any hospital or health care experience.

#### Recent State Actions Limiting Acceptance of Excelsior College ADN Credentials

##### Georgia<sup>4</sup>

House Bill 1041 amended O.C.G.A. § 43-26-7(c): An applicant for licensure by endorsement must have graduated from a "nursing education program approved by the board or which meets criteria similar to, and not less stringent than, those established by the board."

Subsequently, House Bill 475 provided a mechanism for licensure of Excelsior College graduates upon completion of a board-approved, post-graduation preceptorship.

##### Virginia<sup>5</sup>

Changes to the Regulations Governing the Practice of Nursing (18 VAC 90-20-10 et seq.) effective April 2, 2008: 18VAC90-20-120(E) A nursing education program preparing for licensure as a registered nurse shall provide a minimum of 500 hours of direct client care supervised by qualified faculty.

A subsequent regulatory change requires 960 hours of RN practice under another state license for Excelsior College graduates to obtain a Virginia RN license by endorsement.

<sup>4</sup> <http://sos.georgia.gov/plb/rn/>, downloaded Nov. 18, 2009. The Georgia Board of Nursing's Instructions for Nontraditional Nursing Education Program Applicants are detailed at <http://sos.georgia.gov/acrobat/PLB/38%20Instructions%20for%20Nontraditional%20Nursing%20Education%20Program%20Applicants.pdf>.

<sup>5</sup> <http://www.dhp.virginia.gov/nursing/guidelines/90-20%20Distance%20Learning.doc>, downloaded Nov. 18, 2009.

<sup>6</sup> Admission to Excelsior College's associate degree nursing programs is open to: licensed practical/vocational nurses, paramedics, military service corpsmen, and individuals who hold degrees in clinically oriented health care fields in which they have had the opportunity to provide direct patient care (e.g., physicians, respiratory therapists, and physician assistants). Also, individuals who have successfully completed at least 50 percent of the clinical nursing credit hours in an associate, baccalaureate, or RN diploma nursing program may be eligible for the program if they apply within 5 years of completing their last nursing course.

[https://www.excelsior.edu/Excelsior\\_College/School\\_Of\\_Nursing/School\\_of\\_Nursing\\_Admission\\_Policy](https://www.excelsior.edu/Excelsior_College/School_Of_Nursing/School_of_Nursing_Admission_Policy), Oct. 21, 2009.

To explore the issues facing the Excelsior College ADN program, SRI conducted two surveys of nurse supervisors of Excelsior College ADN graduates. Given the difficulty of comparing Excelsior College's program to other ADN programs, researchers asked nurse supervisors for their ratings of graduates' performance as newly-licensed RNs.

## **B. PAST STUDIES**

While Excelsior College has successfully educated RN candidates for 35 years, the uniqueness of its model, the national scope of its student body and the difference among states with regards to RN education and licensure regulation complicate efforts to design research studies to gather evidence that will measure Excelsior College's program against more conventional associate degree programs.

In the past, Excelsior College has used evaluations by nurse supervisors to measure on-the-job performance of Excelsior College ADN graduates. However, response rates have been low, and there has been concern that the methodology used may bias survey responses. Excelsior College ADNs have been asked for permission to contact their nurse supervisors. Intuitively, a low-performing graduate may be less willing to allow contact with a supervisor who may evaluate him or her negatively; there is thus concern that survey results may be overly positive.

## **C. THE CHALLENGES OF SURVEYING NURSE SUPERVISORS WITH DIRECT EXPERIENCE OF EXCELSIOR COLLEGE ADN GRADUATES**

Ideally, if money, time, and logistics were no object, SRI would conduct a nationally representative survey of randomly selected nurse supervisors. We would identify those who have supervised an Excelsior College ADN graduate and ask them to compare the adequacy of preparation of the Excelsior College graduates to nurses educated in more traditional nursing school programs.

However, the uniquely nationwide nature of Excelsior College's program (which has produced roughly 36,000 graduates across a national workforce of 2.5 million registered nurses), and the relatively small number of nurse supervisors (roughly 8 percent of the total nursing workforce) create the situation of searching for the proverbial needle in a haystack. If one attempts to focus on supervisors familiar with the roughly 4,700 Excelsior College students who graduated with ADNs between 2006 and 2008, the task becomes even more challenging.



### III. RESEARCH DESIGN AND METHODOLOGY

#### A. RESEARCH DESIGN

This study used a two-armed survey design to collect data from nurse supervisors. For purposes of comparison, SRI surveyed nurse supervisors familiar with recent Excelsior College ADN graduates identified by contacting recent Excelsior College ADN graduates, in a process similar to previous surveys conducted by Excelsior College. While this methodology seems to be the most efficient and cost-effective way of contacting nurse supervisors familiar with the job performance of Excelsior College ADN graduates, it can be hypothesized that this group may demonstrate a positive bias if graduates who are performing well are more likely than those who are performing poorly to permit contact with their nurse supervisor.

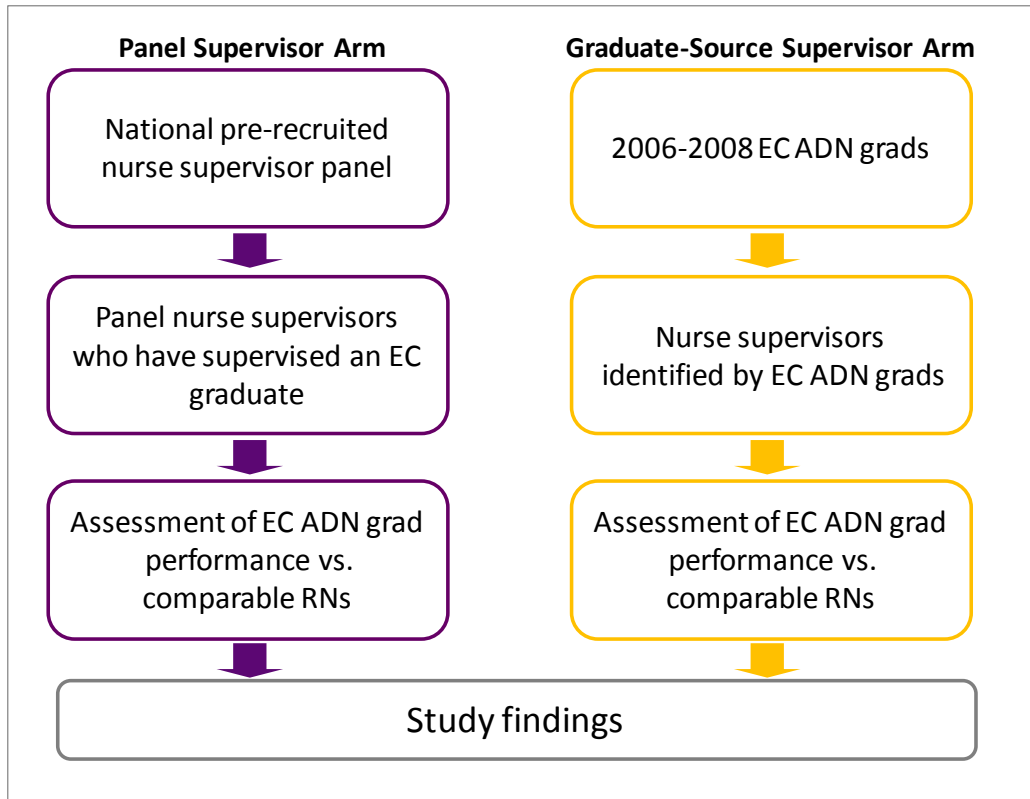
To address this issue, a second approach was devised to survey a group of nurse supervisors identified and accessed through a pre-recruited research panel of health professionals composed of employees from a range of hospitals and healthcare facilities across the country.<sup>7</sup> While more difficult and expensive to identify in large numbers, these individuals may be less likely to exhibit a positive bias when evaluating Excelsior College ADN graduates. Nurses in the panel were screened to determine if they were supervisors and if they had supervised an Excelsior College graduate. Once screened, nurse supervisors who indicated familiarity with Excelsior College ADN graduates were asked to compare the adequacy of Excelsior College graduates' preparation to that of non-Excelsior College graduate nurses.

---

<sup>7</sup> e-Rewards®Healthcare Professional Panel, [http://www.erewardsresearch.com/eri\\_m\\_panelsHealthcareRsch.htm](http://www.erewardsresearch.com/eri_m_panelsHealthcareRsch.htm).



**Figure 5: Study Design**



## **B. SURVEY INSTRUMENT DEVELOPMENT**

The survey protocol used by SRI to implement the two study arms drew heavily on instruments used in similar previous studies conducted by and/or on behalf of Excelsior College to evaluate the quality of the ADN program. Extensive literature review informed development of the questionnaire, which was reviewed by Excelsior College nursing faculty. External review was conducted by three external nursing faculty members as well as Fred Volkwein, Ph.D., an expert in institutional and survey research, and the survey was pilot-tested on nursing students.

An initial set of questions asked nurse supervisors to compare recent Excelsior College ADN graduates to other nurses with similar preparation that they have supervised, using a Likert scale with anchors of 1 (much worse), 4 (about the same) and 7 (much better). Subsequent questions asked respondents if they would hire another Excelsior College ADN graduate if given the opportunity, and if they would recommend Excelsior College's ADN program to others. Supervisors were then asked, in open-ended questions, to list what they consider to be

strengths and deficiencies in Excelsior College ADN graduates. A final section asked supervisors to rate the graduates on a series of elements based on three key aspects of nursing preparation: critical thinking, nursing competencies and communication skills. Again, the instrument used a Likert scale with anchors of 1 (much worse), 4 (about the same) and 7 (much better).

## C. SURVEY PROCESS

### 1. Sample Selection and Distribution

The two arms of this project attempt to reach the same target population – namely nurse supervisors who have recently supervised an Excelsior College ADN graduate – from two independent sources:

- 1) Supervisors identified by Excelsior College ADN graduates (graduate-source supervisors);
- 2) Supervisors identified from a national research panel of health-care professionals (panel supervisors).

#### ***Excelsior College Graduate Sample***

In the first research arm, researchers mirrored procedures adopted by Excelsior College in the past, and contacted recent Excelsior College graduates to ask for permission and contact information to contact their nurse supervisors. To determine sampling strategy for this cohort, SRI and Excelsior College discussed several different options to mitigate concerns about duplicate contacting due to a recent and similar survey conducted in Texas, New York, Virginia, and Georgia for Excelsior College by Pro-Evaluators.

SRI and Excelsior College agreed to draw a random sample of 1,800 from the Excelsior College-provided list of all ADN graduates who graduated between January 2006 and December 2008 from all 50 states. The sample was drawn without consideration of Pro-Evaluators prior work. Based on response rates of previous Excelsior College surveys of ADN graduates, SRI estimated a 33% response from ADN graduates would result in 600 nurse supervisor names and phone numbers.

SRI emailed the 1,800 randomly selected Excelsior College graduates the first week of June 2009 to explain the purpose of the study, ask permission to contact their nurse supervisor, and ask the name and contact information for their current supervisor. The email provided a web link where they could supply the requested supervisor information. Graduates were assured that the survey would focus on the adequacy of the job preparation they received from Excelsior

College and not on their individual job performance. As an incentive and to thank the graduates for participating in the study, SRI promised to send each respondent a 2-3 page summary of the survey results showing how their alma mater and preparation compares to others. It was assumed graduates would be willing to assist their alma mater.

Reminder emails were sent to graduates who had not responded at approximately weekly intervals beginning the second week of June through the end of July. Graduates without a valid email address and those who had not responded to the emails were telephoned beginning the second week of June. Telephone calls were made by LHK Partners, Inc. (LHK) under subcontract to SRI International. At least 6 telephone call attempts were made to each non-responding graduate.

The initial sample of 1,800 graduates generated only 310 nurse supervisors rather than the targeted 600. After consultation with Excelsior College, SRI expanded the study to include the entire population of 4,767 ADN graduates who graduated between January 2006 and December 2008. Similar email and telephone procedures were followed with the additional graduates between July 28 and August 25. The addition of these graduates generated a total sample of 634 nurse supervisors.

Nurse supervisors were emailed beginning June 26, 2009. The email explained the purpose of the study, that they had been identified as a nurse supervisor by a named Excelsior College graduate, and provided a web link to the online questionnaire. Nursing supervisors were assured that their responses would be kept strictly confidential and would be used only in combination with those from other supervisors. An identification number was assigned to each supervisor and stored with their responses. Only the SRI project team has the link to the identity of respondents. Each responding supervisor was offered a check for \$25 as a thank you for participating in the study. SRI estimated a 33% response from nurse supervisors (n=200).

Reminder emails were sent to nurse supervisors who had not responded at approximately weekly intervals beginning the second week of July through the end of August. Supervisors without a valid email address and those who did not respond to the emails were telephoned by LHK beginning the second week of July. Those reached by phone were given the option of completing the questionnaire by phone or online. Those electing to complete it online were asked to provide their current email address and another email was sent providing the web link to the questionnaire. At least 6 telephone call attempts were made to each non-responding supervisor.

### ***National Panel Sample***

For the panel nurse supervisor population, SRI subcontracted with Applied Research & Consulting (ARC) to conduct an online survey of nurse supervisors identified and accessed through a pre-recruited, nationally distributed, research panel of healthcare professionals maintained by e-Rewards, Inc. Potential respondents were selected at random from among the qualifying records (i.e. records listing nurse supervisor as occupation) in the panel database, and further screened to ensure they met the criteria for the survey, i.e., to verify that they were nurse supervisors and currently or had recently supervised an Excelsior College ADN alumnus. Excelsior College was not identified as the sponsor of the survey.

Based on standard panel performance, we expected a response rate of between 20-50 percent of the 7 percent who qualify to complete the survey. Respondents received an incentive payment of \$75.

## **2. Response Rates**

### ***Excelsior College Graduate Sample***

Of the 4,767 Excelsior College ADN graduates between January 2006 and December 2008, only 4,318 (91%) were currently working as a nurse and had either a valid email or phone number to use in contacting them (Table 1). Of these, 634 provided contact information and permission to contact their nurse supervisor, for a response rate of 15 percent among those eligible for the study. This was considerably lower than anticipated. The initial sample of 1,800 graduates yielded 1,564 graduates with valid email or phone numbers who were working as nurses and 318 supervisor names and contact information, for a response rate of 20 percent after an additional month of follow-up efforts.

**Table 1: Excelsior College ADN Graduate Sample  
January 2006 Through December 2008**

	Initial Sample		Additional Sample		Total Sample	
	Number	Percent	Number	Percent	Number	Percent
No email nor phone	148	8	110	4	258	5
Deceased	3	0	0	0	3	0
Not currently a nurse	85	5	103	3	188	4
Eligible for study	1,564	87	2,754	93	4,318	91
Total Graduates	1,800	100	2,967	100	4,767	100
Refused	354	23	309	11	663	15
No response	892	57	2,129	77	3,021	70
Provided Supervisor information	318	20	316	11	634	15
Eligible Graduates	1,564	100	2,754	100	4,318	100

The study team reviewed response rates of graduates from states in which a recent study was conducted by ProEvaluators, to look for the possible effect of over-surveying, but response rates showed no significant differences. Graduate response rates did, however, drop off significantly according to the amount of time that had passed since the graduate's graduation year (Table 2).

**Table 2: Excelsior College ADN Eligible Graduate Sample  
By State of Residence and Graduation Year**

State of Residence	Number Eligible	Number Responding	Percent Responding
Georgia	195	26	13
New York	207	29	14
Texas	504	79	16
Virginia	78	12	15
Other states	3,334	488	15
All states	4,318	634	15



**Table 2: Excelsior College ADN Eligible Graduate Sample  
By State of Residence and Graduation Year**

	Number Eligible	Number Responding	Percent Responding
<b>Graduation year</b>			
2006	1,414	149	11
2007	1,398	191	14
2008	1,506	294	20
All years	4,318	634	15

Of 634 nurse supervisors contacted, 590 had a valid email or phone number and 315 completed the questionnaire, for a response rate of 53 percent. This was considerably higher than the anticipated 30 percent response rate perhaps due to the fact that most graduates asked permission of their supervisors before providing their name and contact information.

**National Panel Nurse Supervisor Sample**

Of 3,660 nurse supervisors contacted, 1,084 (30%) clicked to enter the web-based questionnaire. Of those entering, 383 dropped out before completing the screening, 596 were screened out, and 105 identified themselves as nurse supervisors familiar with the performance of an Excelsior College ADN graduate, yielding a 10 percent incidence rate. All 105 eligible nurse supervisors completed the questionnaire.

**Table 3: Excelsior College ADN Graduate Nurse Supervisor Sample**

	Number	Percent
No email nor phone	44	7
Eligible	590	93
Total Supervisors	634	100
Refused	20	3
No response	255	43
Completed questionnaire	315	53
Eligible Supervisors	590	100

**Table 4: National Panel Nurse Supervisor Sample**

	Frequency	Percent
Total contacted	3,660	100
Entered screening survey	1,084	30
Did not complete screening	383	35
Not supervisor of Excelsior ADN graduate	596	55
Eligible nurse supervisor	105	10

### **3. Data Analysis**

Frequency distributions and mean ratings (when appropriate) were calculated for all survey questions and the results from the two samples were compared. To facilitate meaningful comparisons between the two samples, Student's t-tests were calculated. Comparisons noted in this report, and flagged in the tables presented in the Appendices, are significant at the .05 level of significance. In essence, a difference that is found to be significant at the .05 level is sufficiently large that there is less than a 5% probability that it occurred by chance. Results on a few key items from the graduate sample were also compared by the graduates' state of residence and year of graduation.

Standard errors for sample statistics (e.g., proportions and means) were calculated using standard formulas for binomially and normally distributed variables, under the usual assumption that sample means were approximately normally distributed for Likert scale variables. Tests that a proportion was 50 percent or greater were calculated under the usual assumption that under the null hypothesis that the proportion was 50 percent, the sample proportion was normally distributed.

The extent of possible bias in sample statistics is unknown since there are no nationally representative statistics (for example, information about the universe of nurse supervisors who have supervised Excelsior College graduates) to which we can compare our sample. We have no reason to believe that the panel supervisors self-selected on the basis of prior opinions about Excelsior students, but we cannot discount that possibility. The difference in the responses of panel supervisors and graduate source supervisors suggests that there was a modest positive bias in the graduate-source group relative to the panel group. A modest amount of this bias is explained by graduate source supervisors being more familiar with Excelsior College ADN graduates and the finding that supervisors who are more familiar tend to provide higher ratings.



## IV. STUDY RESULTS

Overall, the results of both surveys reflect favorably on the competency of Excelsior College ADN graduates relative to graduates from other associate degree nursing programs. The comparisons of the two surveys show that there is a slight positive bias from surveying just graduate-source supervisors, but overall, these differences have little impact on the overall qualitative results that Excelsior College ADN graduates are as well prepared, and often better prepared than graduates from traditional ADN nursing programs.

Both surveys asked respondents to rate the competency of Excelsior College ADN graduates as compared to more traditionally-educated ADN graduates. Ratings were made on a scale of 1 to 7 Likert scale, with 7 being much better, 1 being much worse, and 4 being the same. Questions addressed overall clinical competency of graduates, overall program quality, and a series of specific nursing competencies.

Key survey findings, which were all statistically significant at the 0.05 level, include the following:

- Across the board, a strong majority of nurse supervisors in each group rated Excelsior College ADN graduates as same or better (4-7 on the 7-point scale) than traditionally-prepared ADN graduates.
- While percentages for panel supervisors were consistently lower than for graduate-source nurses, the majority of panel supervisors (and, in most cases, close to or more than three quarters) rated Excelsior College ADN graduates as the same or better compared to comparable ADN graduates. Percentages of graduate-source nurse supervisors who rated Excelsior College ADN graduate as the same or better were uniformly in the high eighties to mid-nineties.

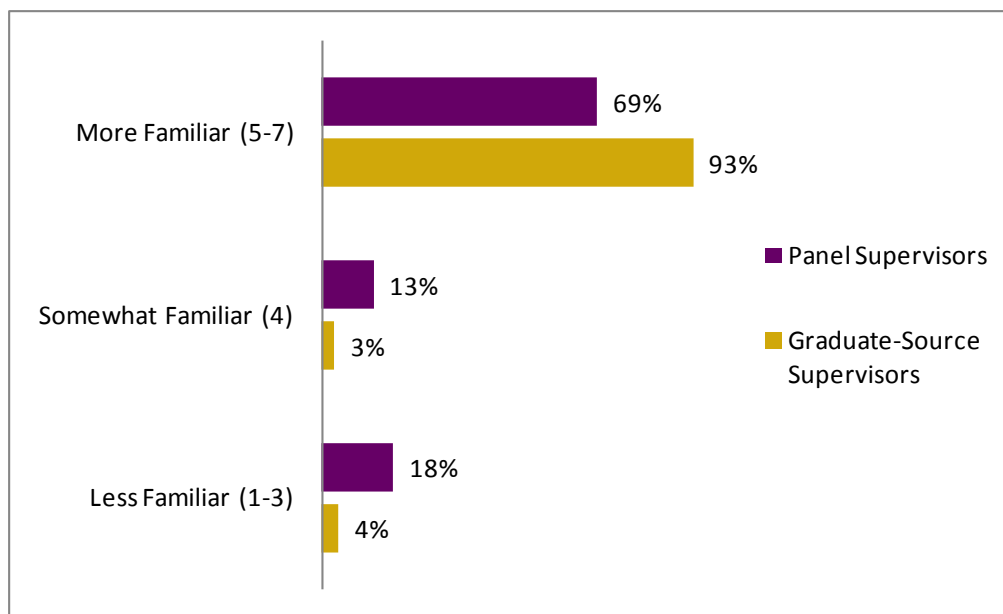
### A. OVERALL PERCEPTIONS

#### **Familiarity with Excelsior College ADN Graduates**

By design, all survey respondents were familiar with Excelsior College ADN graduates. Graduate-source nurse supervisors were more familiar with the daily work performance of an Excelsior College ADN graduate than were panel supervisors. Sixty-nine percent of panel nurse supervisors selected 5, 6 or 7 on a scale of 1 to 7 (with 7 being extremely familiar and 1 being not at all familiar) as compared to 93 percent of graduate-source supervisors. This reported

higher level of familiarity among graduate-source supervisors may be due to the recent request from an Excelsior College ADN graduate to participate in the study, or due to a potential bias in which graduates who have a more close and comfortable relationship with their supervisors were more likely to ask supervisors to participate. While we did find that supervisors who are more familiar tend to provide higher ratings, greater familiarity explains only a modest proportion of the differences in ratings between the two groups of supervisors.

**Figure 6: Nurse Supervisor Familiarity with Excelsior College ADN Graduate**



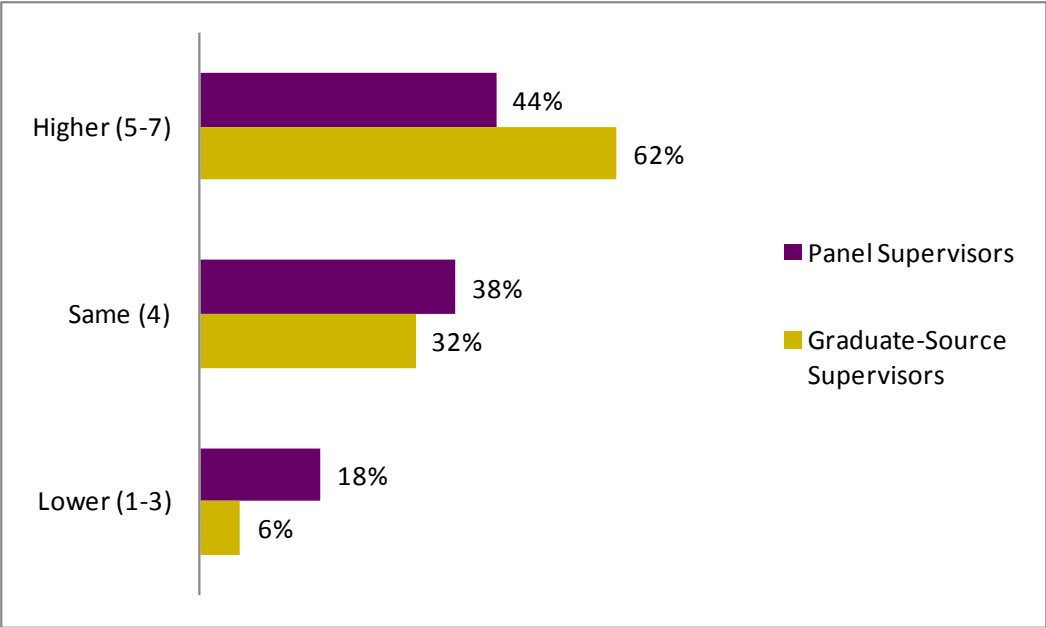
### **Overall Clinical Competence of Excelsior College ADN Graduates**

The large majority of nurse supervisors surveyed (82 percent of panel supervisors; 94 percent of graduate-source supervisors) rated the overall clinical competence of Excelsior College ADN graduates as the same or higher than other associate degree nurses (4 - 7 on a 7-point scale).<sup>8</sup> The average rating by panel supervisors was 4.5 (+/- 0.2)<sup>9</sup>, which is statistically significantly higher than a rating of 4.0 (same) at the 0.05 level. On average, the graduate-source supervisors gave Excelsior College ADN graduates a higher rating on overall clinical competence than did panel supervisors (mean ratings of 5.0 +/-0.1 margin of error).

<sup>8</sup> Forty-four percent of panel supervisors rated the overall competency of Excelsior College graduates at higher than other associate degree nurses (5-7 on a seven point scale) and 38 percent rated them the same (4); combined, 82 percent rated graduates as same or better (4-7 on a seven point scale). Similarly, 62 percent of graduate-source supervisors rated overall competency as higher, and 32% as the same; combined, 94 percent of graduate-source supervisors rated overall competency as same or higher.

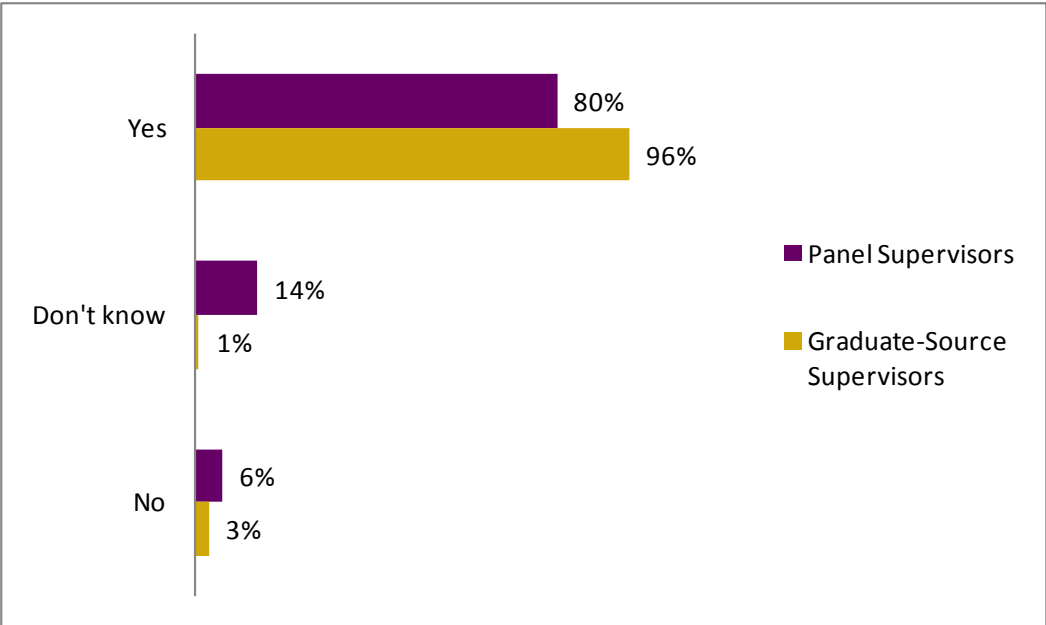
<sup>9</sup> Values after +/- are the half-widths of the 95 percent confidence intervals for the mean, commonly called the "margin of error."

**Figure 7: Nurse Supervisor Ratings of Overall Clinical Competence of Excelsior College ADN Graduates**



Furthermore, the majority of each group of nurse supervisors surveyed said, if given the opportunity, they would hire another Excelsior College ADN graduate (80 percent of panel supervisors and 96 percent of graduate-source supervisors).

**Figure 8: Would you hire another Excelsior College ADN graduate?**



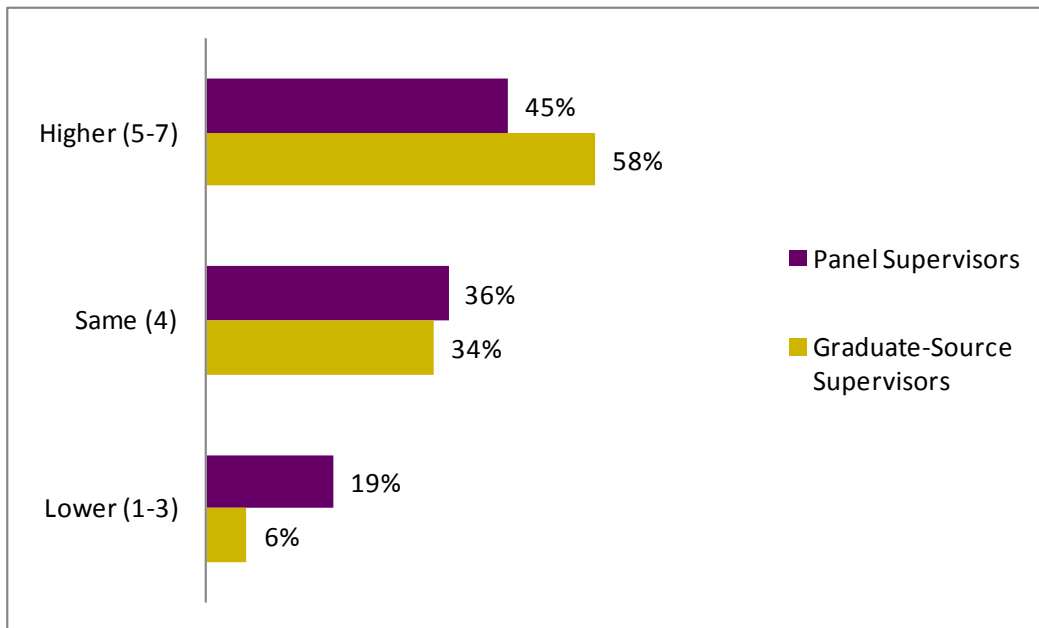
It is interesting to examine the 16 percent difference in responses between the two groups. While panel respondents were less likely to hire another Excelsior ADN graduate (6 percent vs. 3 percent for graduate-source), they were also more likely than graduate-source supervisors to report “don’t know” (14 percent for panel vs. 1 percent for graduate-source). The difference in percentages of respondents reporting “no” was not statistically significant.

### **Overall Quality Rating of Excelsior College Associate Degree Nursing Program**

Eighty-one percent of panel supervisors and 92 percent of graduate source supervisors rated the overall quality of the Excelsior College ADN program as same or better than other programs. Forty-five percent of panel supervisors and 58 percent of graduate-source supervisors rated the Excelsior College ADN program as **better** than other associate degree nursing programs.

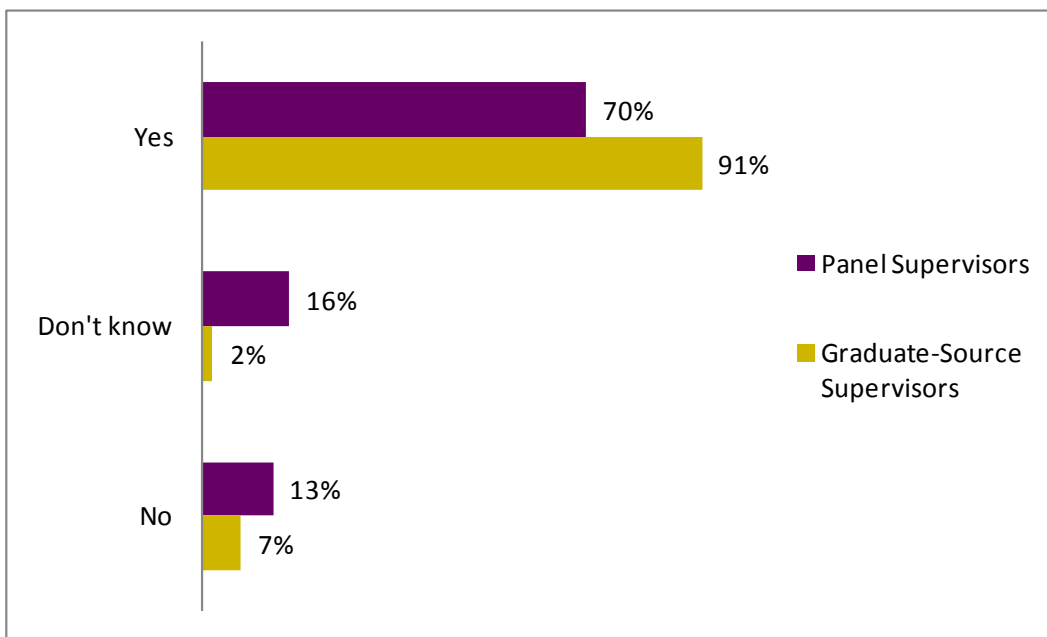
While roughly a third of each group rated the overall quality of Excelsior College’s ADN program as the same as other nursing programs, the two groups varied significantly on the upper and lower ends of the scale. Panel supervisors were more likely to rate the Excelsior program as lower (19 percent panel vs. 6 percent graduate-source) and graduate-source supervisors were more likely to rate the Excelsior program as higher (45 percent panel vs. 58 percent graduate-source).

**Figure 9: Nurse Supervisor Ratings of Overall Excelsior College ADN Program Quality**



A strong majority of both groups surveyed reported that they would recommend the Excelsior nursing program to others (70 percent of panel supervisors and 91 percent of graduate-source supervisors). As was the case with the question about hiring another Excelsior College graduate, the 21 percent difference in positive responses was considerable; however panel nurse supervisors were again statistically significantly more likely to respond “don’t know” than were graduate-source nurse supervisors (16 percent for panel vs. 2 percent for graduate-source).

**Figure 10: Would you recommend the Excelsior College ADN Program to others?**



Given that the California Board of Nursing will only consider Excelsior College graduates for licensure on a case-by-case basis, and that several other states are challenging it, we felt it would be useful to examine the possibility that a nurse supervisor’s recommendation might vary according to his or her state of practice. While only 67 percent of respondents from Georgia reported they would recommend the program to others, 89 percent of respondents from Texas, and 100 percent of respondents from Virginia reported they would recommend it. Interestingly, 93 percent of respondents from California reported they would recommend the Excelsior College ADN program. We also looked at respondents from New York, to test the hypothesis that

**Table 5: Would you recommend the Excelsior College ADN Program to others?**

STATE	n	Percent
		Yes
CA	15	93
GA	12	67
TX	44	89
VA	4	100
NY	13	92

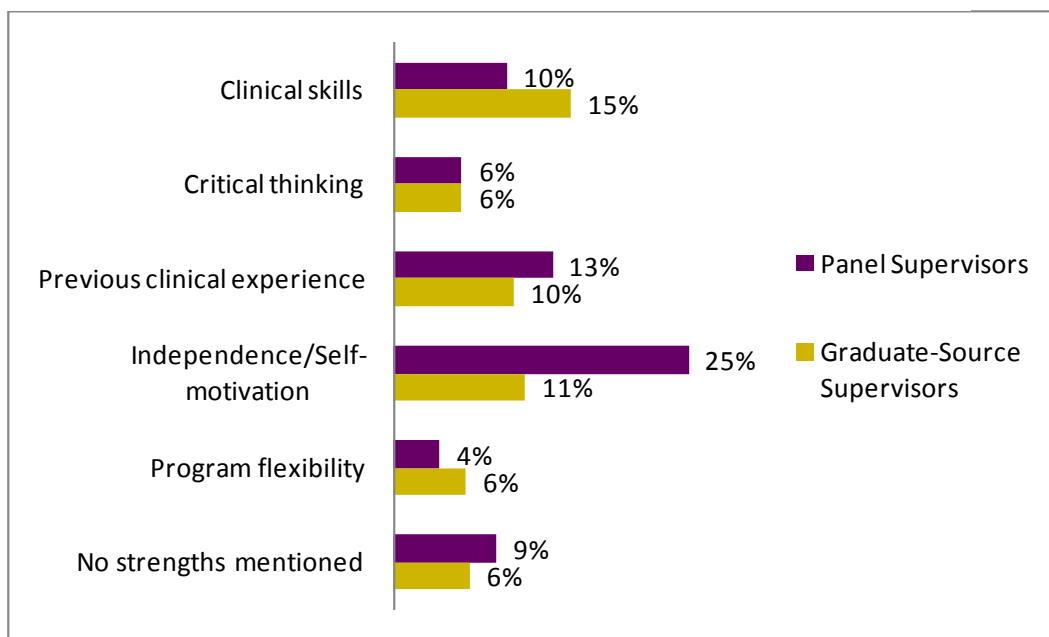
**Note:** Sample sizes are not large enough to provide precise estimates.

respondents might be more likely to recommend a program in their home state and, indeed, 92 percent of respondents from New York reported they would recommend the program to others. Sample sizes were too small to conclude that there was a statistically significant difference in the recommendation rate among these states.

### **Strengths and Deficiencies**

Respondents were asked, in open-ended questions, to comment on what areas, if any, they felt were strengths and deficiencies in Excelsior College ADN graduates.<sup>10</sup> In both panels, responses detailing strengths outnumbered those listing deficiencies. Eighty-five percent of panel nurse supervisors and 86 percent of graduate-source panel respondents described strengths. Sixty-one percent of panel respondents and 54 percent of graduate-source respondents described deficiencies. Respondents were also more likely to identify no deficiencies as opposed to no strengths. Thirty-seven percent of panel respondents and 42 percent of graduate-source respondents listed no deficiencies, while 9 percent of panel supervisors and 6 percent of graduate-source supervisors listed no strengths.

**Figure 11: Excelsior College ADN Graduates' Strengths**



**Note:** Percentages of total respondent pool who mentioned a given strength. Respondents could mention several, one, or no strengths.

<sup>10</sup> Respondents were asked to list any strengths or deficiencies, in two open-ended questions. Respondents could mention no strengths or deficiencies, could list both strengths and deficiencies, and/or could list multiple examples of each. Therefore, percentages in Figures 11 and 12 do not add up to 100 percent.

## Strengths

Most frequently mentioned strengths were independence and self-motivation, clinical skills, and previous experience. Among panel supervisors, the independence, self-motivation and commitment needed to finish a program like the Excelsior College ADN were the strengths most frequently mentioned, by 25 percent of respondents. Thirteen percent of panel supervisors mentioned graduates' previous clinical experience as a strength and 10 percent mentioned strong clinical or hands-on skills. Other strengths mentioned were graduates' critical thinking abilities and the flexibility of the program, which allowed graduates to pursue a degree while continuing to work.

Responses from graduate-source supervisors fell within similar themes, but with different frequencies. The most common strengths mentioned by graduate-source supervisors were regarding clinical skills (15 percent). The second most common strengths mentioned were independence and motivation, mentioned by 11 percent and previous experience by 10 percent of graduate-source supervisors. Other strengths mentioned were the program's flexibility and the critical thinking abilities of graduates. Some representative comments from both groups of supervisor are shown in the attached box.

### Excelsior College ADN Graduate Strengths Sample Comments

*"The program seems to focus the student on skills that they need to know to critically think and perform the job. I have had the pleasure of having a few graduates and have been very pleased."*

*"I believe the students have strong critical thinking skills, are able to implement good quality nursing care, and quick to question when the nursing care, orders etc. are not clear or do not appear to be correct or safe. They have a great amount of self discipline."*

*"Generally, these are second career individuals or individuals transitioning from other degrees. I have hired six over the past 5 years and the generally have good critical thinking skills and some skills that traditional nurses do not have."*

*"These students have often worked while studying and are typically competent at the varied aspects of nursing."*

*"I would say that the Excelsior nursing graduates are determined/easy to teach/focused."*

*"Good clinical hands on experience."*

*"My employee had experience as a LPN, which helped him with his clinical skills and critical thinking skills."*

*"The flexibility of hours to attend."*

*"If the applicant has previous healthcare experience, ie, a LPN, I feel that the program helps them transition to an RN role fairly easily."*

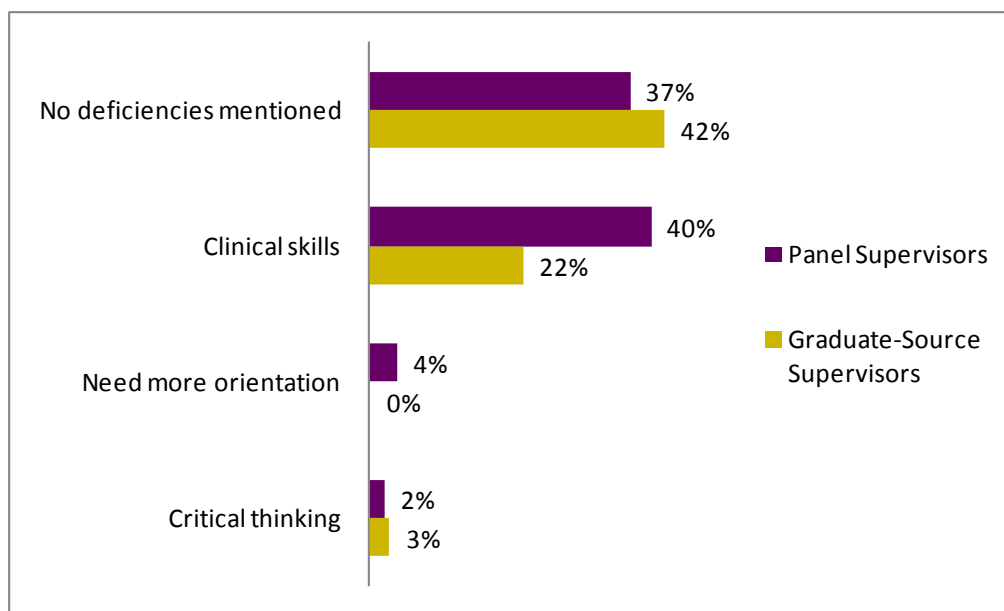
*"The independence and self-motivation. The autonomy. Their ability to function independently and use good sense."*

## Deficiencies

As previously mentioned, thirty-seven percent of panel supervisors and 42 percent of graduate-source supervisors provided no examples of deficiencies when asked. Deficiencies most likely to be mentioned were regarding clinical or hands-on skills.<sup>11</sup> Panel supervisors more often cited weaknesses in clinical skills than did graduate-source supervisors (40 percent vs. 22 percent, respectively). Other frequently cited deficiencies were the need for more orientation (4 percent of panel supervisors and 0 percent of graduate-source supervisors) and critical thinking skills (2 percent and 3 percent, respectively).

Less frequently mentioned were weaknesses in time management (1 percent of panel and 2 percent of graduate-source supervisors); the distance learning format of the program (1 percent of panel, 2 percent of graduate-source); lack of confidence displayed by graduates (0 percent of panel and 2 percent of graduate-source); lack of management training or leadership, either in the graduate or offered by the program (1 percent of panel, 2 percent of graduate-source); and difficulty in making the transition from LPN to RN (0 percent of panel and 2 percent of graduate-source nurse supervisors).

**Figure 12: Excelsior College ADN Graduates' Deficiencies**



**Note:** Percentages of total respondent pool who mentioned a given deficiency. Respondents could mention several, one, or no deficiencies.

<sup>11</sup> Interestingly, clinical/hands-on skills were among the top strengths mentioned, as well as the top deficiency mentioned.



Sample responses from both groups of supervisors follow:

**Excelsior College ADN Graduate Deficiencies Sample Comments**

*"Need more clinical training."*

*"Less experience to clinical procedures. The nurses I know were LPNs who went and got their RN degree and they did extremely well. I would be a little concerned about non-experienced employees."*

*"The biggest challenge with these nurses is they tend to need a longer orientation period to acclimate than traditional nursing students. I believe this is offset by the additional life experience they bring."*

*"A practical application of skills is lacking in the curriculum."*

*"Clinical experience, Critical thinking skills."*

*"They haven't had a lot of exposure, limited clinical experience and not enough time to practice these skills."*

*"I have concerns about the prowess of the candidates in the clinical arena both didactic and hands-on experience. This may be a prejudice on my part, since I have not found them to be more or less proficient as compared to new traditional two year programs."*

*"I have had the opportunity to work with several graduates of your program. Some came out strong, but I feel they had a great background as a LPN for many years in an acute care facility. Others had a very difficult time making the transition from LPN (task oriented) to RN (critical thinking)."*




*"Clinical time but [name] brought clinical skill with him prior."*

***Supervisors Citing Clinical Skills as a Deficiency***

Given the number of supervisors mentioning weakness in clinical skills as a deficiency either in Excelsior ADN graduates or in the ADN graduate program, SRI examined the ratings of that group as a whole, which consisted of 40 percent of the total panel supervisor group and 22 percent of the total graduate-source supervisor group. Between this combined group and the remainder of nurse supervisors who did not report concerns over clinical skills weaknesses, there was no discernable difference in the level of familiarity with an Excelsior College ADN graduate. Average competency ratings by this group do appear to be lower by a statistically significant amount ( $p < .05$ ) than mean competency ratings of the group as a whole. However, the majority of this group consistently rated the skills of Excelsior College ADNs as same or better (4-7) than a comparable non-Excelsior College ADN graduate. When asked to rate the overall clinical competence of Excelsior College ADN graduates compared to others, 77 percent of this group rated them as the same or higher (4-7). Similarly, 77 percent rated the overall quality of the Excelsior College ADN program as same or better than other ADN programs.

Eighty-one percent would hire another Excelsior ADN graduate if given the chance, and 72 percent would recommend the Excelsior College ADN program to others.

**Table 6: Ratings of Excelsior College ADNs by Nurse Supervisors Who Cited Clinical Weaknesses**

		Percent of respondents who responded:	
1.	To what extent are you familiar with the daily work performance of an Excelsior (formerly Regents) College associate degree nursing graduate?	88%	 Familiar/somewhat familiar
2.	How do you rate the overall clinical competence of Excelsior (formerly Regents) College associate degree nursing graduates as compared to other associate degree nurses?	77%	Same or better
3.	As a result of your experience with any Excelsior (formerly Regents) College graduates, how would you rate the overall quality of the Excelsior College associate degree nursing program compared to other associate degree nurses?	77%	 Same or better
4.	Given the opportunity, would you hire another Excelsior (formerly Regents) College associate degree nursing graduate?	81%	Yes
5.	Based on your experiences with any Excelsior (formerly Regents) College associate degree nursing graduates, would you recommend the Excelsior nursing program to others?	72%	 Yes

## B. NURSING CAPABILITIES

The nurse supervisors were asked to rate Excelsior College ADN graduates compared to other associate degree nurses on various nursing capabilities using a 7-point scale where 1=much worse, 4=about the same, and 7=much better. The nursing capability items were grouped into three areas of capability – critical thinking abilities, expected nursing competencies, and communication skills. Graduate-source supervisors consistently gave higher ratings than did panel supervisors on all items; however, both groups consistently rated Excelsior College ADN graduates same or better on all items. For summary comparison purposes, researchers created an overall rating score index for each nursing capability area by calculating the mean over all items related to that area for survey respondent.

To examine rater effects (i.e., some supervisors always rating high and others always rating low) we examined the extent to which the same supervisor gave high and low scores on different items. To do so, we calculated the range of the scores for each supervisor (i.e., the maximum score minus the minimum score) and then generated a distribution of such ranges. The majority of raters had a maximum score difference of 3 or more and few raters had maximum score differences of 0 or 1. This result suggests that the scores were not completely uniform across the different job performance measures. However it also suggests a certain amount of uniformity existed since there were relatively few ranges of 5 or 6.

It should be noted that it is difficult to distinguish a rating effect from a single underlying “competency” factor. Indeed, when we tested the items in each of the three skills area (critical thinking, nursing competencies and communication) for internal reliability by calculating Cronbach’s coefficient alpha, the items in each set correlated highly, with an overall alpha coefficient above 0.97.<sup>12</sup>

### **Critical Thinking**

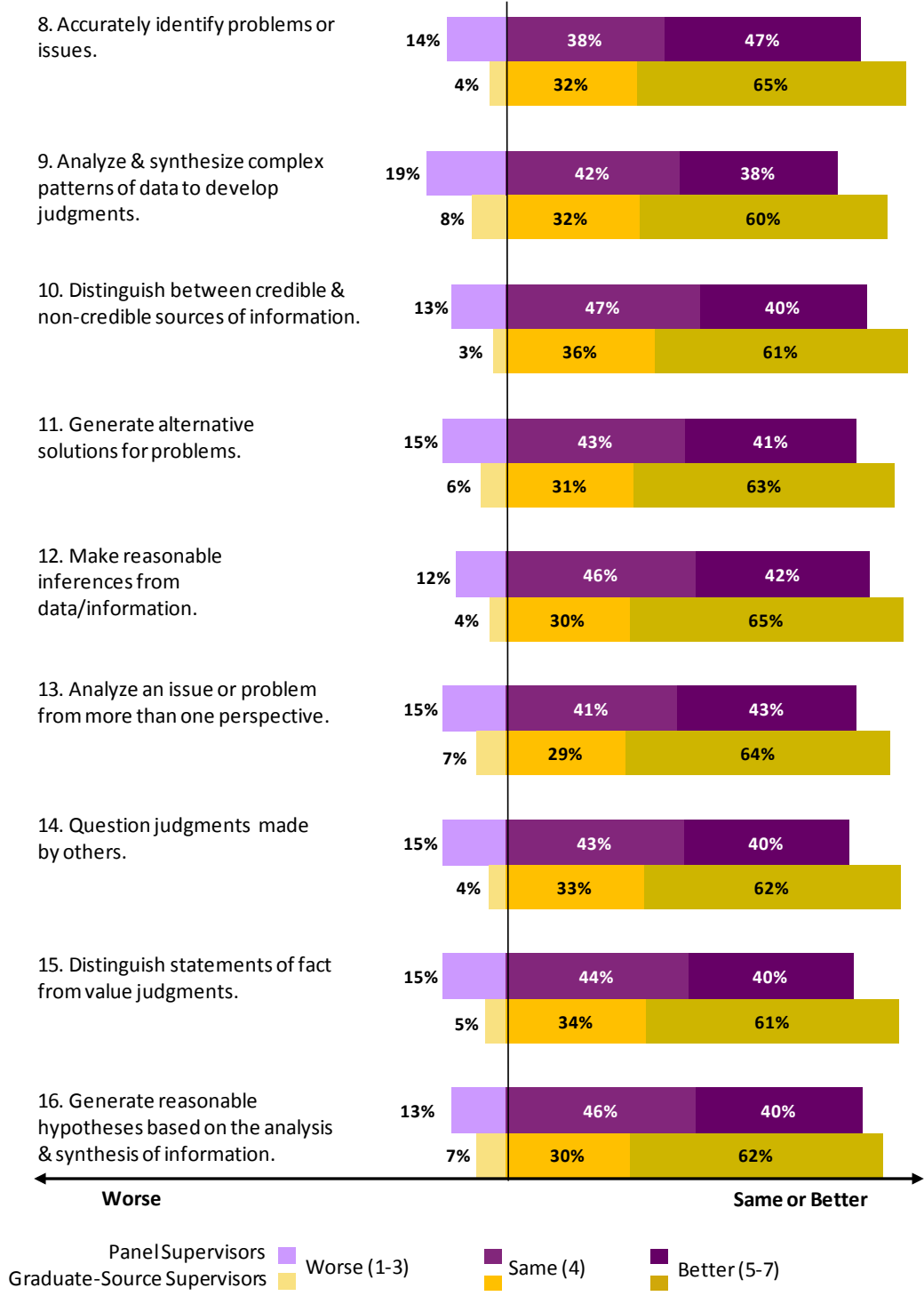
In a nine-element battery of questions designed to elicit an evaluation of the critical thinking skills of Excelsior College ADN graduates as compared to other associate degree nurses, a strong majority of supervisors (88 percent of panel supervisors; 96 percent of graduate-source supervisors, when averaged across all critical thinking elements) rated Excelsior ADN graduates as the same or stronger.

As evidenced in Figure 13, ratings were fairly consistent across the battery of questions. For panel supervisors, percentages of respondents rating Excelsior College ADN graduates as same or better ranged from a low of 80 percent to a high of 88 percent. For graduate-source supervisors, the comparable range was from 92 percent to 97 percent.

---

<sup>12</sup> Cronbach’s  $\alpha$  measures how well a set of variables or items measures a single, underlying concept. Maximum possible score is 1.0. Many consider .70 to be a minimum threshold.

**Figure 13: Nurse Supervisor Ratings of Excelsior College ADN Graduates' Critical Thinking Abilities**



**Note:** Responses may not total 100 percent due to rounding error and/or respondents who answered "don't know," typically less than 3 percent of total respondents. Detailed response data is available in Appendix F.

The average index rating of Excelsior College ADN graduates' critical thinking abilities by panel supervisors was 4.5 (+/- 0.2), which is statistically significantly higher than 4.0 (a ranking of "same") at the 0.05 level. The average index rating of critical thinking abilities by the graduate-source supervisors was 5.1 (+/- 0.1), which is also statistically significantly higher than 4.0.

As in previous questions using a Likert scale, there was a notable difference between the panel and graduate-source supervisors, with panel supervisors tending to rate slightly lower. The mean score for the nine-element critical thinking index was 4.5 for panel supervisors and 5.1 for graduate-source supervisors. Individual item score averages were quite consistent, ranging from 4.4 to 4.6 for panel supervisors and from 5.0 to 5.2 for graduate-source supervisors.

**Table 7: Critical Thinking Capabilities of Excelsior College ADN Graduates**

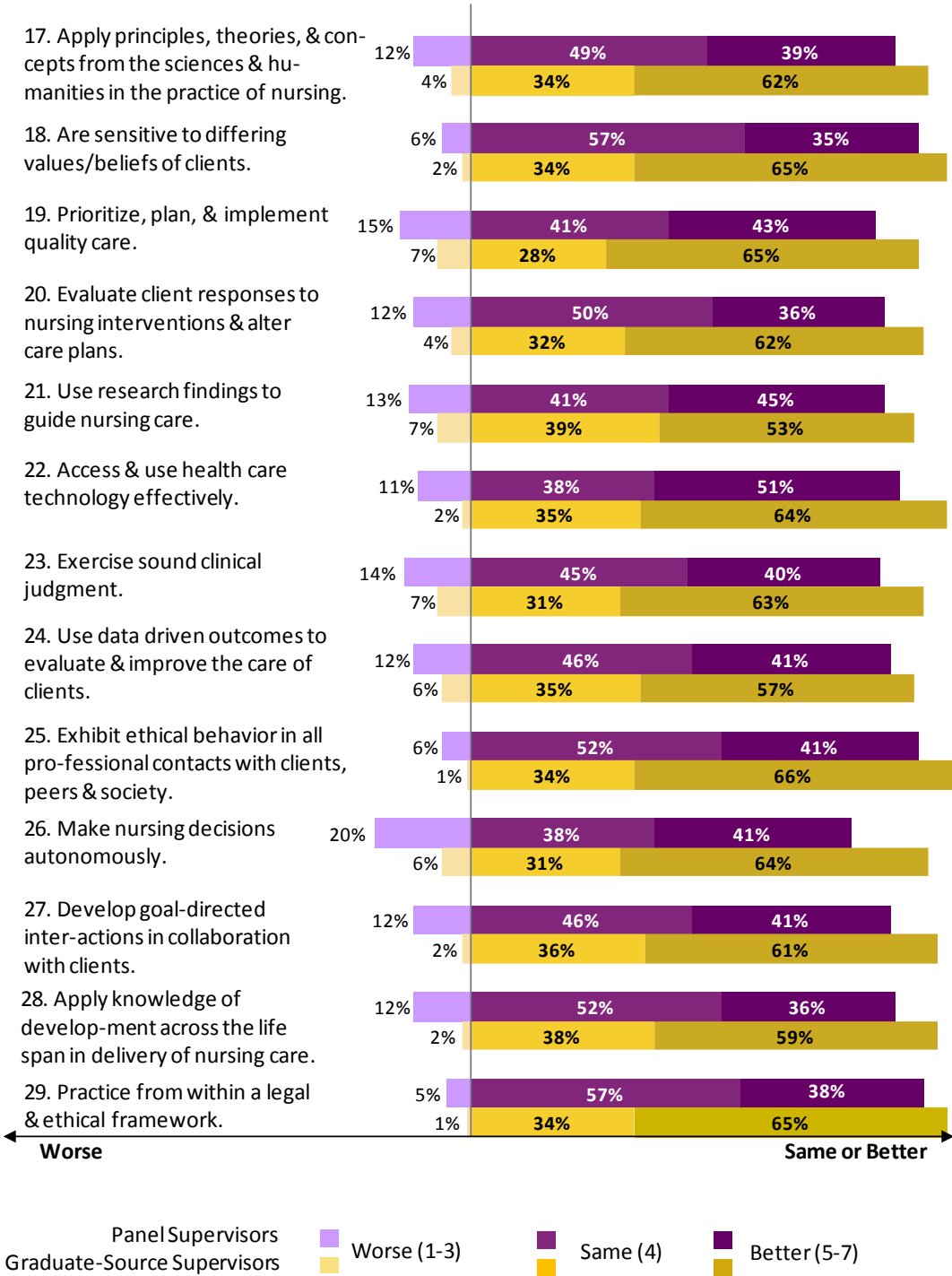
		Panel Supervisors		Graduate- Source Supervisors	
		Mean	Margin of Error	Mean	Margin of Error
8.	Accurately identify problems or issues.	4.6	+/-0.2	5.2	+/-0.1
9.	Analyze and synthesize complex patterns of data to develop judgments.	4.4	+/-0.2	5.0	+/-0.1
10.	Distinguish between credible and non-credible sources of information.	4.5	+/-0.2	5.1	+/-0.1
11.	Generate alternative solutions for problems.	4.5	+/-0.2	5.1	+/-0.1
12.	Make reasonable inferences from data/information.	4.6	+/-0.2	5.2	+/-0.1
13.	Analyze an issue or problem from more than one perspective.	4.5	+/-0.2	5.1	+/-0.1
14.	Question judgments made by others.	4.4	+/-0.2	5.1	+/-0.1
15.	Distinguish statements of fact from value judgments.	4.4	+/-0.2	5.1	+/-0.1
16.	Generate reasonable hypotheses based on the analysis and synthesis of information.	4.5	+/-0.2	5.0	+/-0.1
<b>OVERALL CRITICAL THINKING INDEX</b>		<b>4.5</b>	<b>+/-0.2</b>	<b>5.1</b>	<b>+/-0.1</b>

*Note: Mean ratings calculated on a 7-point scale where 1=Much worse, 4=About the same, and 7=Much better. All panel and graduate-source mean ratings are reliably different from each other (p <.05).*

### **Nursing Competencies**

In a 13-element battery of questions designed to elicit an evaluation of the nursing competencies of Excelsior College ADN graduates as compared to other associate degree nurses, the strong majority of supervisors – 89 percent of panel supervisors and 98 percent of graduate-source supervisors – rated Excelsior ADN graduates as the same or stronger than other ADN graduate in all elements, when ratings were averaged across elements. Again, ratings were fairly consistent among elements, with percentages ranging from 79 to 95 percent for panel supervisors and from 92 to 100 percent for graduate-source supervisors.

**Figure 14: Nurse Supervisor Ratings of Excelsior college ADN Graduates' Nursing Competencies**



**Note:** Responses may not total 100 percent due to rounding error and/or respondents who answered "don't know," typically less than 3 percent of total respondents. Detailed response data is available in Appendix F.

As in previous questions using a Likert scale, there was a statistically significant difference between the panel and graduate-source supervisors, with panel supervisors tending to rate slightly lower. The combined mean score for all 13 elements was 4.5 for panel supervisors and 5.2 for graduate-source supervisors. Scores were quite consistent among elements, ranging from 4.5 to 4.7 for panel supervisors. Responses from graduate-source supervisors showed a slightly wider range of 4.9 to 5.3.

**Table 8: Nursing Competencies of Excelsior College ADN Graduates**

		Panel Supervisors		Graduate- Source Supervisors	
		Mean	Margin of Error	Mean	Margin of Error
17.	Apply principles, theories, and concepts from the sciences and humanities in the practice of nursing.	4.5	+/- 0.2	5.1	+/- 0.1
18.	Are sensitive to differing values/beliefs of clients.	4.5	+/- 0.2	5.2	+/- 0.1
19.	Prioritize, plan, and implement quality care.	4.5	+/- 0.2	5.2	+/- 0.1
20.	Evaluate client responses to nursing interventions and alter care plans.	4.5	+/- 0.2	5.2	+/- 0.1
21.	Use research findings to guide nursing care.	4.5	+/- 0.2	4.9	+/- 0.1
22.	Access and use health care technology effectively.	4.7	+/- 0.2	5.3	+/- 0.1
23.	Exercise sound clinical judgment.	4.5	+/- 0.2	5.2	+/- 0.1
24.	Use data driven outcomes to evaluate and improve the care of clients.	4.5	+/- 0.2	5.0	+/- 0.1
25.	Exhibit ethical behavior in all professional contacts with clients, peers, and society.	4.6	+/- 0.2	5.3	+/- 0.1
26.	Make nursing decisions autonomously.	4.5	+/- 0.2	5.2	+/- 0.1
27.	Develop goal-directed interactions in collaboration with clients.	4.6	+/- 0.2	5.1	+/- 0.1
28.	Apply knowledge of development across the life span in delivery of nursing care.	4.5	+/- 0.2	5.1	+/- 0.1
29.	Practice from within a legal and ethical framework.	4.6	+/- 0.2	5.3	+/- 0.1
	<b>OVERALL NURSING COMPETENCIES</b>	<b>4.5</b>	<b>+/- 0.2</b>	<b>5.2</b>	<b>+/- 0.1</b>

*Note: Mean ratings calculated on a 7-point scale where 1=Much worse, 4=About the same, and 7=Much better. All panel and graduate-source mean ratings are reliably different from each other (p <.05).*

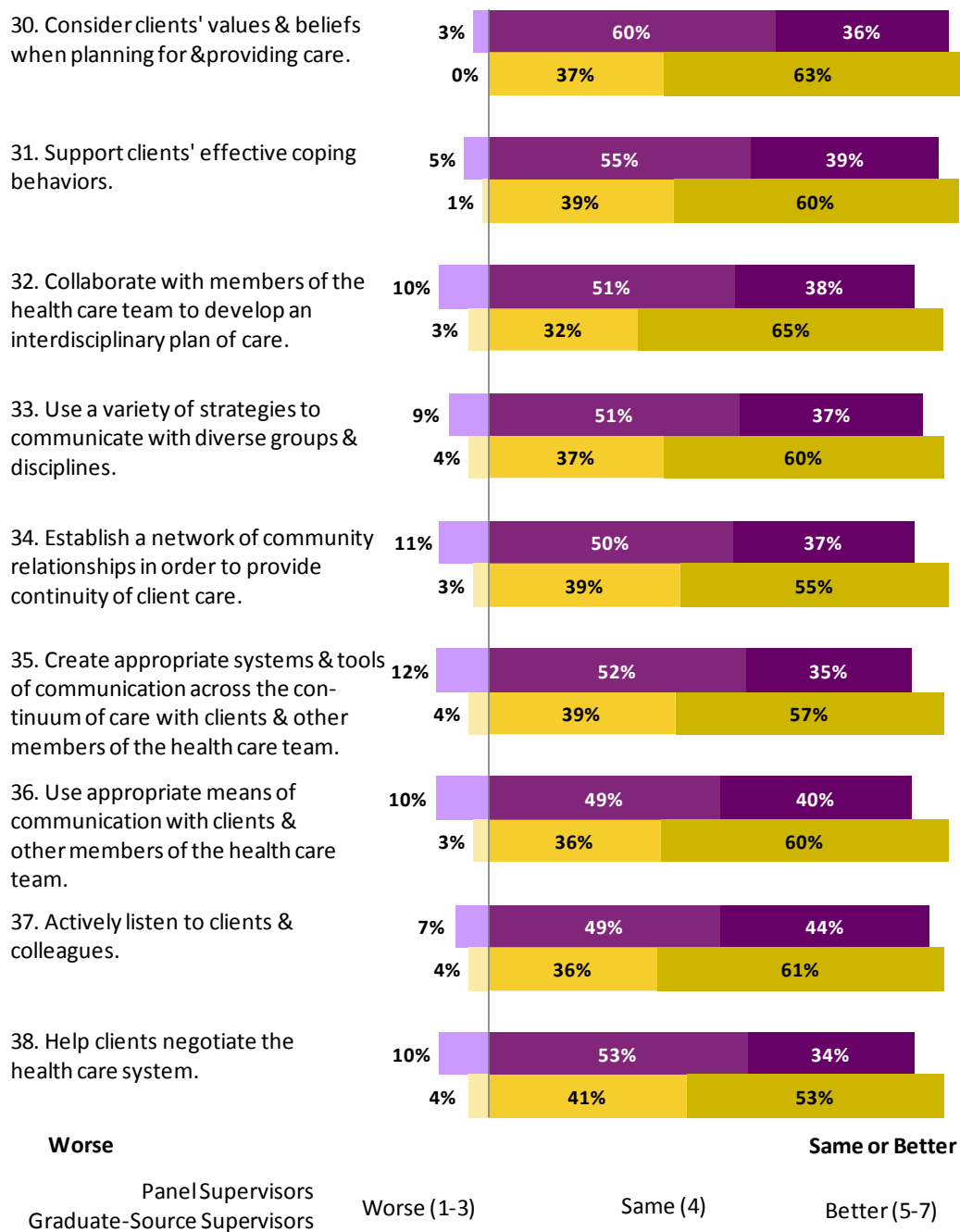


### **Communication Skills**

In a nine-element battery of questions designed to elicit an evaluation of the communications skills of Excelsior College ADN graduates as compared to other associate degree nurses, once again, the strong majority of supervisors – 94 percent of panel supervisors and 99 percent of graduate-source nurse supervisors – rated Excelsior ADN graduates as the same or stronger than other ADN graduates in all elements, when ratings were averaged across elements.

As with other indices, rating was fairly consistent. For panel supervisors, percentages of respondents rating Excelsior College ADN graduates as same or better than other ADN graduates in communications skills ranged from 87 to 96 percent. Comparable ranges for graduate-source supervisors were 94 to 100 percent.

**Figure 15: Nurse Supervisor Ratings of Excelsior College ADN Graduates' Communications Skills**



**Note:** Responses may not total 100 percent due to rounding error and/or respondents who answered "don't know," typically less than 3 percent of total respondents. Detailed response data is available in Appendix F.

As in previous questions using a Likert scale, there was a reliable difference between the panel and graduate-source supervisors, with panel supervisors tending to rate slightly lower. The combined mean score for all nine elements was 4.5 for panel supervisors and 5.1 for graduate-source supervisors. Scores were quite consistent among elements, ranging from 4.5 to 4.7 for panel supervisors, and from 5.0 to 5.2 for graduate-source supervisors.

**Table 9: Overall Communications Skills of Excelsior College ADN Graduates**

	Panel Supervisors		Graduate- Source Supervisors	
	Mean	Margin of Error	Mean	Margin of Error
30. Consider clients' values and beliefs when planning for and providing care.	4.6	+/- 0.2	5.2	+/- 0.1
31. Support clients' effective coping behaviors.	4.6	+/- 0.2	5.1	+/- 0.1
32. Collaborate with members of the health care team to develop an interdisciplinary plan of care.	4.5	+/- 0.2	5.2	+/- 0.1
33. Use a variety of strategies to communicate with diverse groups and disciplines.	4.5	+/- 0.2	5.1	+/- 0.1
34. Establish a network of community relationships in order to provide continuity of client	4.5	+/- 0.2	5.0	+/- 0.1
35. Create appropriate systems and tools of communication across the continuum of care with	4.5	+/- 0.2	5.0	+/- 0.1
36. Use appropriate means of communication with clients and other members of the health car	4.5	+/- 0.2	5.1	+/- 0.1
37. Actively listen to clients and colleagues.	4.7	+/- 0.2	5.2	+/- 0.1
38. Help clients negotiate the health care system.	4.5	+/- 0.2	5.0	+/- 0.1
<b>OVERALL COMMUNICATION</b>	<b>4.5</b>	<b>+/- 0.2</b>	<b>5.1</b>	<b>+/- 0.1</b>

**Note:** Mean ratings calculated on a 7-point scale where 1=Much worse, 4=About the same, and 7=Much better. All panel and graduate-source mean ratings are reliably different from each other ( $p < .05$ ).

## V. CONCLUSIONS

Overall, the results of both surveys reflect favorably on the competency of Excelsior College ADN graduates relative to graduates from other associate degree nursing programs. The comparisons of the two surveys show that there is a slight positive bias from surveying just graduate-source supervisors, but overall, these differences have little impact on the overall qualitative results that Excelsior College ADN graduates are as well prepared, and often better prepared than graduates from traditional ADN programs.

## VI. REFERENCES

Li, S. & Kenward, K. (2006). *Elements of Nursing Education*. Chicago: NCSBN.

Spector, N., Li, S., & Kenward, K. (2006). Evidence-based nursing education for regulation. *JONA'S Healthcare Law, Ethics and Regulation*, 8, (3), 84-86.

National Council of State Boards of Nursing Practice, Regulation and Education Committee. (2006). *Evidence-Based Nursing Education for Regulation (EBNER)*. Chicago: NCSBN.

National Council of State Boards of Nursing Practice, Regulation and Education Committee. (2005). *Clinical Instruction in Prelicensure Nursing*. NCSBN Position Paper. Chicago: NCSBN.

Newman, D. & Stahl, M. A. (1995). *Utilizing Supervisor Ratings in the Evaluation of the Regents College RN-ADN Program*. Presentation at the American Evaluation Association Meeting. Vancouver, Canada.

Savidge, M. A. (2007). *Report: Survey of Graduates Receiving the Associate Degree of Nursing*. Albany, NY: Excelsior College.



# Appendices



## APPENDIX A: EMAIL TO EXCELSIOR COLLEGE GRADUATES

Subject line: Excelsior College evaluation opportunity

Dear [insert name],

We are conducting a study for Excelsior College that focuses on the experience nursing supervisors have with new nursing graduates. This study seeks to gather evidence that will measure Excelsior College's program against more conventional associate degree programs, in order to address challenges to the validity of Excelsior College School of Nursing's associate degree in nursing by various state boards of nursing.

Your name was randomly selected from a list provided to us by Excelsior College of students who recently graduated with an associate degree. We would appreciate your participation.

We would like to contact your nursing supervisor at your current employment to ask them to complete a short survey comparing Excelsior College graduates with other nursing graduates on areas such as critical thinking, nursing competency, and communication. With your supervisor's permission, please click on the URL link below and provide us your supervisor's name, telephone number, and e-mail address (if available).

**[insert link—graduates survey ID number will be imbedded]**

Or you may simply copy and paste the above line into the address line of your internet browser.

**To thank you for participating in this important study, we will send you a summary of the survey results showing how preparation from your alma mater compares to other nursing programs.**

Your participation is voluntary. If you do not wish to participate, simply reply to this e-mail with "REFUSED" in the subject line, and we will remove your name from our survey sample.

For more information about the study, see the overview below. If you have any other questions about the study or problems with the online form, simply reply to this e-mail.

**Please complete the online form as soon as possible. Your participation is important to the success of this study.**

Sincerely,

Mary P Hancock  
Study Coordinator  
SRI International  
1100 Wilson Blvd., Suite 2800  
Arlington, VA 22209  
360-380-4966



## **STUDY OVERVIEW**

### **What is the purpose of the study?**

The National Council of State Boards of Nursing (NCSBN) has recommended evidence-based research to support the rules and regulations of boards of nursing that are intended to govern safe and effective entry to the field of nursing. This study seeks to gather evidence that will measure Excelsior College's program against more conventional associate degree programs.

### **How was I selected for this study?**

You were randomly selected from all Excelsior College associate degree graduates between Jan. 1, 2006 and Dec. 31, 2008. A total of 1,800 associate degree graduates were selected for this study.

### **Will I or my supervisor be identified?**

All nursing supervisor responses will be kept strictly confidential and will be used only in combination with those from other supervisors. You and your supervisor will not be identified in our summary report to Excelsior College. A code included in the web address allows us to cross your name off our contact list once we have received your supervisor information and to send you the summary of survey results.

### **How will my email address be used?**

Your email address will be used only to send you a summary of the survey results (and to send you the web link for providing your supervisor contact information).

### **How will my supervisor be contacted?**

Supervisors identified by associate degree graduates will be contacted either by e-mail (if available) or telephone. Those contacted by e-mail will be asked to complete an online questionnaire; those contacted by telephone will be given the option of answering the questions over the phone or completing the online questionnaire.

### **How long will it take?**

We estimate it will take only a few minutes of your time to provide your supervisor's name, telephone, and e-mail address. We estimate it will take approximately 10 minutes for your supervisor to complete the questionnaire.

### **Who funded the study and who is involved?**

The study is funded by Excelsior College and conducted by researchers from SRI International and our telephone subcontractor, LHK Partners, Inc. ([www.partnersinc.com/company.htm](http://www.partnersinc.com/company.htm)).



### **Who is SRI International?**

SRI International is one of the world's largest and most respected research and consulting organizations. Founded in 1946 as Stanford Research Institute, SRI is an independent, nonprofit corporation serving business and government clients worldwide. More information on SRI is available on our website ([www.sri.com/policy](http://www.sri.com/policy)).

### **How do I know the study is legitimate?**

If you wish to verify Excelsior College's authorization for the study, contact:

Patricia A. Edwards, EdD, RN, NEA-BC  
Associate Dean, School of Nursing  
Excelsior College  
518-464-8660  
[pedwards@excelsior.edu](mailto:pedwards@excelsior.edu)



## APPENDIX B: TELEPHONE SCRIPT FOR EXCELSIOR COLLEGE GRADUATES

Stanford Research Institute (SRI) is conducting a study for Excelsior College that focuses on the experience nursing supervisors have with new nursing graduates. This study seeks to gather evidence that will measure Excelsior College's associate degree in nursing program against more conventional nursing degree programs, in order to address challenges to the validity of the Excelsior College program by various state boards of nursing.

Your name was randomly selected from a list of students who recently graduated from Excelsior College with an associate degree in nursing. We would appreciate your participation.

We would like to contact your nursing supervisor at your current employment to ask them to complete a short survey comparing Excelsior College graduates with other nursing graduates on areas such as critical thinking, nursing competency, and communication.

What is the name of your current nursing supervisor?

**Supervisor's name:**

**Phone number:**

**Email address:**

*(If the graduate prefers to first ask permission of their supervisor:)* We can email you a web link where you can provide the information online once you have your supervisor's permission. What is your email address?

**Graduate's email address:**

*(If graduate prefers a callback:)* When is the best time for me to call you?

**Callback day and time:**

To thank you for participating in this important study, SRI will send you a summary of the survey results showing how preparation from your alma mater compares to other nursing programs.

*(If not obtained above:)* What is your email address so we can send you the survey results?

**Graduate's email address:**

Again, thank you very much for participating.

*(If the graduate has other questions, see below.)*



### **What is the purpose of the study?**

The National Council of State Boards of Nursing (NCSBN) has recommended evidence-based research to support the rules and regulations of boards of nursing that are intended to govern safe and effective entry to the field of nursing. This study seeks to gather evidence that will measure Excelsior College's program against more conventional associate degree programs.

### **How was I selected for this study?**

You were randomly selected from all Excelsior College associate degree graduates between Jan. 1, 2006 and Dec. 31, 2008. A total of 1,800 associate degree graduates were selected for this study.

### **Will I or my supervisor be identified?**

All nursing supervisor responses will be kept strictly confidential and will be used only in combination with those from other supervisors. You and your supervisor will not be identified in the report to Excelsior College.

### **How will my email address be used?**

Your email address will be used only to send you a summary of the survey results (and to send you the web link for providing your supervisor contact information).

### **How will my supervisor be contacted?**

Supervisors identified by associate degree graduates will be contacted either by e-mail (if available) or telephone. Those contacted by e-mail will be asked to complete an online questionnaire; those contacted by telephone will be given the option of answering the questions over the phone or completing the online questionnaire.

### **How long will it take?**

We estimate it will take only a few minutes of your time to provide your supervisor's name, telephone, and e-mail address. We estimate it will take approximately 10 minutes for your supervisor to complete the questionnaire.

### **Who funded the study and who is involved?**

The study is funded by Excelsior College and conducted by researchers from SRI International and LHK Partners, Inc.



### **Who is SRI International?**

SRI International is one of the world's largest and most respected research and consulting organizations. Founded in 1946 as Stanford Research Institute, SRI is an independent, nonprofit corporation serving business and government clients worldwide. More information on SRI is available on their website ([www.sri.com/policy](http://www.sri.com/policy)).

### **Who is LHK Partners, Inc.?**

LHK Partners is a full service marketing research firm. Utilizing our experience in a variety of industries, LHK designs collects and reports results of custom research projects to address specific client needs. ([www.partnersinc.com/company.htm](http://www.partnersinc.com/company.htm))

### **How do I know the study is legitimate?**

If you wish to verify **Excelsior College's** authorization for the study, contact:

Patricia A. Edwards, EdD, RN, NEA-BC  
Associate Dean, School of Nursing  
Excelsior College  
518-464-8660  
[pedwards@excelsior.edu](mailto:pedwards@excelsior.edu)

### **SRI International contact:**

Mary Hancock  
Study Coordinator  
SRI International  
360-380-4966  
[mary.hancock@sri.com](mailto:mary.hancock@sri.com)

## APPENDIX C: EMAIL TO GRADUATE-SOURCE NURSE SUPERVISORS

Subject line: Excelsior College evaluation opportunity

Dear [insert name],

We are conducting a study for Excelsior College that focuses on the experience nursing supervisors have with recent nursing graduates. [INSERT NAME], a recent Excelsior College graduate, indicated you are his/her supervisor. We would appreciate your participation.

Please complete a short questionnaire comparing Excelsior College associate degree nursing graduates with other nursing graduates you have supervised on areas such as critical thinking, nursing competency, and communication. Please click on the URL link below and answer a few questions. We estimate it will take you 10 minutes or less.

**[insert link—supervisor’s survey ID number will be imbedded]**

Or you may simply copy and paste the above line into the address line of your internet browser.

**To thank you for participating in this important study, we will send you a check for \$25.**

Your participation is voluntary. If you do not wish to participate, simply reply to this e-mail with “REFUSED” in the subject line, and we will remove your name from our survey sample.

There is a chance that you supervise more than one Excelsior College graduate and may be contacted more than once. If, in the past 2 weeks, you have answered questions online or by phone comparing Excelsior College graduates to other nursing graduates you have supervised, please reply to this e-mail with “ANSWERED” in the subject line and we will remove your name from our survey sample.

For more information about the study, see the overview below. If you have any other questions about the study or problems with the online questionnaire, simply reply to this e-mail.

**Please complete the questionnaire as soon as possible. Your participation is important to the success of this study.**

Sincerely,

Mary P Hancock  
Study Coordinator  
SRI International  
1100 Wilson Blvd. Suite 2800  
Arlington, VA 22209  
360-380-4966



## **STUDY OVERVIEW**

### **What is the purpose of the study?**

The National Council of State Boards of Nursing (NCSBN) has recommended evidence-based research to support the rules and regulations of boards of nursing that are intended to govern safe and effective entry to the field of nursing. This study seeks to gather evidence that will measure Excelsior College's program against more traditional associate degree nursing programs.

### **How was I selected for this study?**

You were identified as the supervisor of a recent Excelsior College associate degree nursing graduate. A total of 1,800 associate degree nursing graduates were randomly selected for this study.

### **Will I be identified?**

All nursing supervisor responses will be kept strictly confidential and will be used only in combination with those from other supervisors. Neither the graduates nor Excelsior College will know who responded. A code included in the web address allows us to cross your name off our contact list once we have received your completed questionnaire so that we don't contact you again.

### **How will my e-mail and mailing addresses be used?**

Your e-mail address will be used only to send you the web link for responding to the questionnaire. The name and address you provide at the end of the questionnaire will be used only to send you the check for \$25.

### **How long will it take?**

We estimate it will take approximately 10 minutes to complete the questionnaire.

### **When and how will I receive the \$25 check?**

We will mail a check for \$25 to you after the study is completed sometime in August 2009. The check will come from LHK Partners, Inc. and will be mailed to the address you provide at the end of the questionnaire.



**Who funded the study and who is involved?**

The study is funded by Excelsior College and conducted by researchers from SRI International and our subcontractor, LHK Partners, Inc. ([www.partnersinc.com/company.htm](http://www.partnersinc.com/company.htm)).

**Who is SRI International?**

SRI International is one of the world’s largest and most respected research and consulting organizations. Founded in 1946 as Stanford Research Institute, SRI is an independent, nonprofit corporation serving business and government clients worldwide. More information on SRI is available on our website ([www.sri.com/policy](http://www.sri.com/policy)).

**How do I know the study is legitimate?**

If you wish to verify Excelsior College’s authorization for the study, contact:

Patricia A. Edwards, EdD, RN, NEA-BC  
Associate Dean, School of Nursing  
Excelsior College  
518-464-8660  
[pedwards@excelsior.edu](mailto:pedwards@excelsior.edu)



## APPENDIX D: TELEPHONE SCRIPT FOR GRADUATE-SOURCE NURSE SUPERVISORS

Stanford Research Institute (SRI) is conducting a study for Excelsior College that focuses on the experience nursing supervisors have with recent nursing graduates. Excelsior College was formerly known as Regents College. [INSERT NAME], a recent Excelsior College graduate, indicated you are his/her supervisor. We would appreciate your participation.

**To thank you for participating in this important study, we will send you a check for \$25.**

There is a chance that you supervise more than one Excelsior College graduate and may be contacted more than once. In the past 2 weeks, have you answered questions online or by phone comparing Excelsior College associate degree nursing graduates to other nursing graduates you have supervised on areas such as critical thinking, nursing competency, and communication?

- 1 Yes → Thank you very much. We will remove you from our calling list. [TERMINATE]
- 2 No → CONTINUE

We would like to ask you a few questions. We estimate it will take less than 10 minutes of your time.

*(If the supervisor agrees, proceed to the questionnaire.)*

*(If the supervisor wants more information about the study, see the STUDY OVERVIEW below.)*

*(If the supervisor prefers a callback:)* We can call you back at a more convenient time or we can e-mail you a web link where you can answer the questions online. Which do you prefer?

Prefer callback → What day and time would be best?

**DATE:** \_\_\_\_\_ **TIME:** \_\_\_\_\_

What phone number would be best?

**PREFERRED PHONE:** \_\_\_\_\_

Thank you very much for your willingness to participate. We will call you on [repeat date and time] at [repeat preferred phone number]. [TERMINATE]

Prefer e-mail → What is your e-mail address?

**E-MAIL ADDRESS:** \_\_\_\_\_

Thank you very much for your willingness to participate. We will e-mail you at *[repeat e-mail address]*. The e-mail will come from [mary.hancock@sri.com](mailto:mary.hancock@sri.com). Please make sure your e-mail will accept an e-mail from that address. *[TERMINATE]*

## **STUDY OVERVIEW**

### **What is the purpose of the study?**

The National Council of State Boards of Nursing (NCSBN) has recommended evidence-based research to support the rules and regulations of boards of nursing that are intended to govern safe and effective entry to the field of nursing. This study seeks to gather evidence that will measure Excelsior College's program against more traditional associate degree nursing programs.

### **How was I selected for this study?**

You were identified as the supervisor of a recent Excelsior College associate degree nursing graduate. A total of 1,800 associate degree nursing graduates were randomly selected for this study.

### **Will I be identified?**

All nursing supervisor responses will be kept strictly confidential and will be used only in combination with those from other supervisors. Neither the graduates nor Excelsior College will know who responded. A code included in the web address allows us to cross your name off our contact list once we have received your completed questionnaire so that we don't contact you again.

### **How will my e-mail and mailing addresses be used?**

Your e-mail address will be used only to send you the web link for responding to the questionnaire. The name and address you provide at the end of the questionnaire will be used only to send you the check for \$25.

### **How long will it take?**

We estimate it will take approximately 10 minutes to complete the questionnaire.

### **When and how will I receive the \$25 check?**

We will mail a check for \$25 to you after the study is completed sometime in August 2009. The check will come from LHK Partners, Inc. and will be mailed to the address you provide at the end of the questionnaire.





### **Who funded the study and who is involved?**

The study is funded by Excelsior College and conducted by researchers from SRI International and our subcontractor, LHK Partners, Inc. ([www.partnersinc.com/company.htm](http://www.partnersinc.com/company.htm)).

### **Who is SRI International?**

SRI International is one of the world's largest and most respected research and consulting organizations. Founded in 1946 as Stanford Research Institute, SRI is an independent, nonprofit corporation serving business and government clients worldwide. More information on SRI is available on our website ([www.sri.com/policy](http://www.sri.com/policy)).

### **How do I know the study is legitimate?**

If you wish to verify Excelsior College's authorization for the study, contact:

Patricia A. Edwards, EdD, RN, NEA-BC  
Associate Dean, School of Nursing  
Excelsior College  
518-464-8660  
[pedwards@excelsior.edu](mailto:pedwards@excelsior.edu)



## APPENDIX E: NURSING SUPERVISOR QUESTIONNAIRE

Your responses to this questionnaire are strictly confidential and will be used only in combination with those from other supervisors. Neither the graduates nor Excelsior College will know you responded.

### Overall

		Not at All Familiar					Extremely Familiar	
1.	To what extent are you familiar with the daily work performance of an Excelsior (formerly Regents) College associate degree nursing graduate?	1	2	3	4	5	6	7

		Much Lower		About the same			Much Higher	
2.	How do you rate the overall clinical competence of Excelsior (formerly Regents) College associate degree nursing graduates as compared to other associate degree nurses?	1	2	3	4	5	6	7

		Much Lower		About the same			Much Higher	
3.	As a result of your experience with any Excelsior (formerly Regents) College graduates, how would you rate the overall quality of the Excelsior College associate degree nursing program compared to other colleges?	1	2	3	4	5	6	7

4. Given the opportunity, would you hire another Excelsior (formerly Regents) College associate degree nursing graduate?

- Yes..... 1
- No ..... 2



5. Based on your experiences with any Excelsior (formerly Regents) College associate degree nursing graduates, would you recommend the Excelsior nursing program to others?

Yes..... 1

No ..... 2

6. What areas, if any, do you feel are STRENGTHS in Excelsior (formerly Regents) College associate degree nursing graduates?

---



---

7. What areas, if any, do you feel are DEFICIENCIES in Excelsior (formerly Regents) College associate degree nursing graduates?

---



---

### Critical Thinking

Based on a 7-point scale where 1=Much worse, 4=About the same, and 7=Much better, please evaluate the critical thinking abilities of Excelsior (formerly Regents) College associate degree nursing graduates as compared to other nurses you know who have received an associate degree in nursing.

As compared to other nurses, Excelsior (formerly Regents) College associate degree nursing graduates can:		Much Worse		About the same			Much Better	
8.	Accurately identify problems or issues.	1	2	3	4	5	6	7
9.	Analyze and synthesize complex patterns of data to develop judgments.	1	2	3	4	5	6	7
10.	Distinguish between credible and non-credible sources of information.	1	2	3	4	5	6	7
11.	Generate alternative solutions for problems.	1	2	3	4	5	6	7
12.	Make reasonable inferences from data/information.	1	2	3	4	5	6	7
13.	Analyze an issue or problem from more than one perspective.	1	2	3	4	5	6	7
14.	Question judgments made by others.	1	2	3	4	5	6	7

As compared to other nurses, Excelsior (formerly Regents) College associate degree nursing graduates can:		Much Worse		About the same			Much Better	
15.	Distinguish statements of fact from value judgments.	1	2	3	4	5	6	7
16.	Generate reasonable hypotheses based on the analysis and synthesis of information.	1	2	3	4	5	6	7

## Nursing Competencies

Following is a list of nursing competencies which associate degree nursing graduates are expected to possess.

Please evaluate the nursing competencies of Excelsior (formerly Regents) College associate degree nursing graduates compared to other nurses you know who have received an associate degree in nursing using the same 7-point scale (where 1=Much worse, 4=About the same, and 7=Much better).

As compared to other nurses, Excelsior (formerly Regents) College associate degree nursing graduates...		Much Worse		About the same			Much Better	
17.	Apply principles, theories, and concepts from the sciences and humanities in the practice of nursing.	1	2	3	4	5	6	7
18.	Are sensitive to differing values/beliefs of clients.	1	2	3	4	5	6	7
19.	Prioritize, plan, and implement quality care.	1	2	3	4	5	6	7
20.	Evaluate client responses to nursing interventions and alter care plans.	1	2	3	4	5	6	7
21.	Use research findings to guide nursing care.	1	2	3	4	5	6	7
22.	Access and use health care technology effectively.	1	2	3	4	5	6	7
23.	Exercise sound clinical judgment.	1	2	3	4	5	6	7
24.	Use data driven outcomes to evaluate and improve the care of clients.	1	2	3	4	5	6	7
25.	Exhibit ethical behavior in all professional contacts with clients, peers, and society.	1	2	3	4	5	6	7

As compared to other nurses, Excelsior (formerly Regents) College associate degree nursing graduates...		Much Worse		About the same			Much Better	
26.	Make nursing decisions autonomously.	1	2	3	4	5	6	7
27.	Develop goal-directed interactions in collaboration with clients.	1	2	3	4	5	6	7
28.	Apply knowledge of development across the life span in delivery of nursing care.	1	2	3	4	5	6	7
29.	Practice from within a legal and ethical framework.	1	2	3	4	5	6	7

## Communication

Please evaluate the communication skills of the Excelsior (formerly Regents) College associate degree nursing graduates with whom you are familiar compared to other nurses you know who have received an associate degree in nursing using the same 7-point scale (where 1=Much worse, 4=About the same, and 7=Much better).

As compared to other nurses, Excelsior (formerly Regents) College associate degree nursing graduates...		Much Worse		About the same			Much Better	
30.	Consider clients' values and beliefs when planning for and providing care.	1	2	3	4	5	6	7
31.	Support clients' effective coping behaviors.	1	2	3	4	5	6	7
32.	Collaborate with members of the health care team to develop an interdisciplinary plan of care.	1	2	3	4	5	6	7
33.	Use a variety of strategies to communicate with diverse groups and disciplines.	1	2	3	4	5	6	7
34.	Establish a network of community relationships in order to provide continuity of client care.	1	2	3	4	5	6	7
35.	Create appropriate systems and tools of communication across the continuum of care with clients and other members of the health care team.	1	2	3	4	5	6	7

As compared to other nurses, Excelsior (formerly Regents) College associate degree nursing graduates...	Much Worse		About the same			Much Better	
36. Use appropriate means of communication with clients and other members of the health care team.	1	2	3	4	5	6	7
37. Actively listen to clients and colleagues.	1	2	3	4	5	6	7
38. Help clients negotiate the health care system.	1	2	3	4	5	6	7

To thank you for participating in this important study, we will send you a check for \$25.

Please provide your mailing address. Your name and address will be used only to send you the check for \$25. Please watch for an envelope with a return address from LHK Partners, Inc., within the next few weeks

Name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

**Thank you very much.**

## APPENDIX F: CROSS TABULATIONS

### Survey of Nursing Supervisors of Associate Degree Nursing Graduates by Source of Data

[Note: Mean calculated on 7-point scale, excluding Don't know]

	Panel	Graduates	All
<b>Q1-To what extent are you familiar with the daily work performance of an Excelsior (formerly Regents) College associate degree nursing graduate?</b>			
Number of respondents	105	312	417
Mean	5.37 *	6.32 **	6.08
1-Not at all familiar	2	2	2
2	2	1	1
3	14 **	1 *	5
4	13 **	3 *	6
5	15	10	11
6	14	19	18
7-Extremely familiar	39 *	65 **	58
<b>Q2-How do you rate the overall clinical competence of Excelsior (formerly Regents) College associate degree nursing graduates as compared to other associate degree nurses?</b>			
Number of respondents	105	315	420
Mean	4.52 *	5.01 **	4.89
1-Much lower	1	0	< 1
2	3	2	2
3	14 **	4 *	7
4-About the same	38	32	34
5	18	25	23
6	20	27	25
7-Much higher	6	10	9

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).



Q3-As a result of your experience with any Excelsior (formerly Regents) College graduates, how would you rate the overall quality of the Excelsior College associate degree nursing program compared to

Number of respondents

Mean

1-Much lower

2

3

4-About the same

5

6

7-Much higher

Don't know

Panel	Graduates	All
105	313	418
4.5 *	4.93 **	4.82
2	< 1	1
1	1	1
16 **	5 *	8
36	34	34
21	27	25
19	22	21
5	9	8
0 *	3 **	2

Q4-Given the opportunity, would you hire another Excelsior (formerly Regents) College associate degree nursing graduate?

Number of respondents

Yes

No

Don't know

105	315	420
80 *	96 **	92
6	3	4
14 **	1 *	4

Q5-Based on your experiences with any Excelsior (formerly Regents) College associate degree nursing graduates, would you recommend the Excelsior nursing program to others?

Number of respondents

Yes

No

Don't know

105	314	419
70 *	91 **	86
13	7	9
16 **	2 *	6

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).





Q8-Accurately identify problems or issues.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Panel		Graduates		All
	105	313		418
	4.62 *	5.24 **		5.08
	0	< 1		< 1
	3	< 1		1
	11 **	3 *		5
	38	32		33
	23	17		19
	16 *	31 **		27
	8 *	17 **		14
	1	0		< 1

Q9-Analyze and synthesize complex patterns of data to develop judgments.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

	105	313		418
	4.38 *	5 **		4.84
	2	< 1		1
	2	1		1
	15 **	6 *		9
	42	32		34
	21	21		21
	10 *	29 **		24
	7	10		9
	1	1		1

Q10-Distinguish between credible and non-credible sources of information.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

	105	313		418
	4.51 *	5.14 **		4.98
	0	< 1		< 1
	5 **	0 *		1
	8 **	2 *		4
	47	36		39
	19	20		20
	14 *	26 **		23
	7 *	15 **		13
	1	< 1		< 1

Q11-Generate alternative solutions for problems.

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q12-Make reasonable inferences from data/information.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q13-Analyze an issue or problem from more than one  
perspective.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q14-Question judgments made by others.

Number of respondents

Panel		Graduates		All
105		313		418
4.47	*	5.15	**	4.98
1		< 1		< 1
4		< 1		1
10		5		6
43		31		34
18		22		21
19		24		23
4	*	17	**	14
1		0		< 1
105		313		418
4.59	*	5.21	**	5.06
0		< 1		< 1
4		< 1		1
8		3		4
46	**	30	*	34
17		22		21
18	*	27	**	25
7	*	16	**	14
1		< 1		< 1
105		314		419
4.5	*	5.08	**	4.94
1		< 1		< 1
4		1		1
10		6		7
41		29		32
22		24		23
14	*	28	**	25
7		12		11
1		0		< 1
105		314		419

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).

	Panel		Graduates		All
Mean	4.44	*	5.11	**	4.95
1-Much worse	0		< 1		< 1
2	7	**	< 1	*	2
3	8		4		5
4-About the same	43		33		35
5	23		22		22
6	10	*	27	**	23
7-Much better	7		13		11
Don't know	3		1		1

Q15-Distinguish statements of fact from value judgments.

Number of respondents	105		314		419
Mean	4.44	*	5.08	**	4.92
1-Much worse	1		< 1		< 1
2	4		< 1		1
3	10	**	4	*	5
4-About the same	44		34		37
5	22		23		23
6	10	*	25	**	21
7-Much better	8		13		12
Don't know	2		0		< 1

Q16-Generate reasonable hypotheses based on the analysis and synthesis of information.

Number of respondents	105		312		417
Mean	4.46	*	5.05	**	4.9
1-Much worse	0		< 1		< 1
2	5	**	1	*	2
3	8		6		7
4-About the same	46	**	30	*	34
5	24		21		21
6	10	*	30	**	25
7-Much better	6		11		9
Don't know	2		1		1

Q17-Apply principles, theories, and concepts from the sciences and humanities in the practice of nursing.

Number of respondents	105		314		419
Mean	4.45	*	5.1	**	4.94

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).

1-Much worse  
2  
3  
4-About the same  
5  
6  
7-Much better  
Don't know

Q18-Are sensitive to differing values/beliefs of clients.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q19-Prioritize, plan, and implement quality care.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q20-Evaluate client responses to nursing interventions and alter care plans.

Number of respondents

Mean

1-Much worse

2

Panel	Graduates	All
0	1	< 1
4	< 1	1
8	3	4
49 **	34 *	38
22	23	23
13 *	23 **	21
4 *	15 **	12
1	0	< 1
105	314	419
4.52 *	5.22 **	5.05
0	< 1	< 1
1	0	< 1
5	1	2
57 **	34 *	40
16	20	19
15 *	27 **	24
4 *	16 **	13
2	< 1	1
105	314	419
4.55 *	5.22 **	5.06
1	< 1	< 1
2	1	1
12 **	6 *	7
41 **	28 *	31
19	19	19
17 *	27 **	24
7 *	19 **	16
1	< 1	< 1
105	314	419
4.47 *	5.16 **	4.99
0	0	0
1	1	1

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).

3  
4-About the same  
5  
6  
7-Much better  
Don't know

Q21-Use research findings to guide nursing care.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q22-Access and use health care technology effectively.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q23-Exercise sound clinical judgment.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

Panel		Graduates		All
11	**	3	*	5
50	**	32	*	36
18		22		21
12	*	25	**	22
6	*	15	**	13
1		2		2
105		314		419
4.5	*	4.94	**	4.83
0		1		< 1
6	**	1	*	2
7		5		5
41		39		39
25		19		20
17		20		20
3	*	14	**	11
2		2		2
105		314		419
4.67	*	5.26	**	5.11
0		0		0
2		< 1		1
9	**	1	*	3
38		35		36
25		20		21
23		23		23
3	*	21	**	16
1		< 1		< 1
105		314		419
4.53	*	5.2	**	5.04
0		< 1		< 1
3		1		1
11	**	5	*	6
45	**	31	*	34

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).

5  
6  
7-Much better  
Don't know

Panel	Graduates	All
16	18	18
18	27	25
6 *	18 **	15
1	0	< 1

Q24-Use data driven outcomes to evaluate and improve the care of clients.

Number of respondents  
Mean  
1-Much worse  
2  
3  
4-About the same  
5  
6  
7-Much better  
Don't know

105	314	419
4.52 *	4.97 **	4.86
0	< 1	< 1
2	< 1	1
10	5	6
46	35	38
22	25	25
13	20	18
6 *	12 **	11
1	1	1

Q25-Exhibit ethical behavior in all professional contacts with clients, peers, and society.

Number of respondents  
Mean  
1-Much worse  
2  
3  
4-About the same  
5  
6  
7-Much better  
Don't know

105	313	418
4.63 *	5.32 **	5.14
0	0	0
2	0	< 1
4	1	1
52 **	34 *	38
19	20	20
15 *	25 **	22
7 *	21 **	17
1	0	< 1

Q26-Make nursing decisions autonomously.

Number of respondents  
Mean  
1-Much worse  
2  
3  
4-About the same  
5

105	313	418
4.49 *	5.16 **	5
1	< 1	< 1
3	1	1
16 **	5 *	8
38	31	33
16	19	18

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).

6  
7-Much better  
Don't know

Panel		Graduates		All
17	*	28	**	25
8	*	17	**	14
1		0		< 1

Q27-Develop goal-directed interactions in collaboration with clients.

Number of respondents

105                      313                      418

Mean

4.55 \*                      5.13 \*\*                      4.98

1-Much worse

0                      < 1                      < 1

2

2                      0                      < 1

3

10 \*\*                      2 \*                      4

4-About the same

46                      36                      39

5

22                      20                      20

6

11 \*                      28 \*\*                      24

7-Much better

8                      13                      11

Don't know

2                      1                      1

Q28-Apply knowledge of development across the life span in delivery of nursing care.

Number of respondents

105                      314                      419

Mean

4.49 \*                      5.13 \*\*                      4.97

1-Much worse

0                      < 1                      < 1

2

2                      0                      < 1

3

10 \*\*                      2 \*                      4

4-About the same

52 \*\*                      38 \*                      42

5

15                      19                      18

6

13 \*                      25 \*\*                      22

7-Much better

7 \*                      15 \*\*                      13

Don't know

1                      1                      1

Q29-Practice from within a legal and ethical framework.

Number of respondents

105                      314                      419

Mean

4.62 \*                      5.31 \*\*                      5.14

1-Much worse

0                      0                      0

2

1                      0                      < 1

3

4                      1                      2

4-About the same

56 \*\*                      34 \*                      39

5

17                      19                      19

6

13 \*                      24 \*\*                      21

\*This group's percentage is reliably lower than that of all other groups combined (p < .05).

\*\*This group's percentage is reliably higher than that of all other groups combined (p < .05).

7-Much better  
Don't know

Panel		Graduates		All
8	*	21	**	18
1		< 1		< 1

Q30-Consider clients' values and beliefs when planning for and providing care.

Number of respondents

105		312		417
-----	--	-----	--	-----

Mean

4.57	*	5.16	**	5.01
------	---	------	----	------

1-Much worse

0		< 1		< 1
---	--	-----	--	-----

2

0		0		0
---	--	---	--	---

3

3		0		1
---	--	---	--	---

4-About the same

60	**	37	*	43
----	----	----	---	----

5

18		24		22
----	--	----	--	----

6

13	*	23	**	21
----	---	----	----	----

7-Much better

5	*	16	**	13
---	---	----	----	----

Don't know

1		< 1		< 1
---	--	-----	--	-----

Q31-Support clients' effective coping behaviors.

Number of respondents

105		312		417
-----	--	-----	--	-----

Mean

4.58	*	5.1	**	4.97
------	---	-----	----	------

1-Much worse

0		0		0
---	--	---	--	---

2

0		1		< 1
---	--	---	--	-----

3

5	**	< 1	*	1
---	----	-----	---	---

4-About the same

55	**	39	*	43
----	----	----	---	----

5

19		22		21
----	--	----	--	----

6

17		24		22
----	--	----	--	----

7-Much better

3	*	14	**	11
---	---	----	----	----

Don't know

1		1		1
---	--	---	--	---

Q32-Collaborate with members of the health care team to develop an interdisciplinary plan of care.

Number of respondents

105		312		417
-----	--	-----	--	-----

Mean

4.52	*	5.2	**	5.03
------	---	-----	----	------

1-Much worse

0		< 1		< 1
---	--	-----	--	-----

2

0		0		0
---	--	---	--	---

3

10	**	3	*	5
----	----	---	---	---

4-About the same

51	**	32	*	37
----	----	----	---	----

5

18		21		20
----	--	----	--	----

6

13	*	28	**	24
----	---	----	----	----

7-Much better

6	*	16	**	13
---	---	----	----	----

Don't know

1		0		< 1
---	--	---	--	-----

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).



Q33-Use a variety of strategies to communicate with diverse groups and disciplines.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Panel	Graduates	All
105	311	416
4.51 *	5.06 **	4.92
0	< 1	< 1
1	0	< 1
8	3	4
51 **	37 *	40
18	23	21
16	23	22
3 *	14 **	11
3	< 1	1

Q34-Establish a network of community relationships in order to provide continuity of client care.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

105	311	416
4.46 *	5.0 **	4.86
0	< 1	< 1
3	< 1	1
8 **	2 *	4
50	39	42
17	22	21
19	19	19
1 *	14 **	10
3	4	4

Q35-Create appropriate systems and tools of communication across the continuum of care with clients and other members of the health care team.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

105	312	417
4.45 *	5.04 **	4.89
0	< 1	< 1
2	0	< 1
10 **	3 *	5
52 **	39 *	42
18	20	19
11 *	23 **	20
6 *	14 **	12
1	1	1

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).



Q36-Use appropriate means of communication with clients and other members of the health care team.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q37-Actively listen to clients and colleagues.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

Q38-Help clients negotiate the health care system.

Number of respondents

Mean

1-Much worse

2

3

4-About the same

5

6

7-Much better

Don't know

	Panel	Graduates	All
Number of respondents	105	310	415
Mean	4.54 *	5.15 **	4.99
1-Much worse	0	< 1	< 1
2	0	0	0
3	10 **	3 *	5
4-About the same	49	36	39
5	20	21	21
6	16	20	19
7-Much better	4 *	19 **	15
Don't know	1	< 1	< 1
Number of respondents	105	312	417
Mean	4.69 *	5.18 **	5.06
1-Much worse	0	0	0
2	2	< 1	1
3	5	3	4
4-About the same	49 **	36 *	39
5	19	19	19
6	16	22	21
7-Much better	9 *	20 **	17
Don't know	1	< 1	< 1
Number of respondents	105	311	416
Mean	4.45 *	4.99 **	4.86
1-Much worse	0	0	0
2	2	0	< 1
3	8	4	5
4-About the same	53	41	44
5	16	18	18
6	15	22	20
7-Much better	3 *	13 **	10
Don't know	3	2	2

\*This group's percentage is reliably lower than that of all other groups combined ( $p < .05$ ).

\*\*This group's percentage is reliably higher than that of all other groups combined ( $p < .05$ ).



## APPENDIX G: MEAN RATINGS, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS - PANEL SUPERVISORS

VAR	LABEL	PANEL SUPERVISORS				
		N	Mean	Lower 95% CL	Upper 95% CL	Std Err
Q1	Extent familiar with daily work of EC graduate	105	5.4	5.0	5.7	0.16
Q2	Overall clinical competence of EC graduates	105	4.5	4.3	4.8	0.12
Q3	Overall quality of EC ADN program	105	4.5	4.3	4.7	0.12
Q4	Yes, Would you hire another EC graduate?	105	80	72	88	3.92
Q5	Yes, Would you recommend the EC program to others?	105	70	62	79	4.47
Q8	Accurately identify problems or issues.	104	4.6	4.4	4.8	0.12
Q9	Analyze and synthesize complex patterns of data to develop judgments.	104	4.4	4.1	4.6	0.12
Q10	Distinguish between credible and non-credible sources of information.	104	4.5	4.3	4.7	0.12
Q11	Generate alternative solutions for problems.	104	4.5	4.2	4.7	0.12
Q12	Make reasonable inferences from data/information.	104	4.6	4.4	4.8	0.12
Q13	Analyze an issue or problem from more than one perspective.	104	4.5	4.3	4.7	0.12
Q14	Question judgments made by others.	102	4.4	4.2	4.7	0.12
Q15	Distinguish statements of fact from value judgments.	103	4.4	4.2	4.7	0.12
Q16	Generate reasonable hypotheses based on the analysis and synthesis of information.	103	4.5	4.2	4.7	0.11
	<b>CRITICAL THINKING INDEX</b>	<b>104</b>	<b>4.5</b>	<b>4.3</b>	<b>4.7</b>	<b>0.11</b>
Q17	Apply principles, theories, and concepts from the sciences and humanities in the practice of nursing.	104	4.5	4.2	4.7	0.10
Q18	Are sensitive to differing values/beliefs of clients.	103	<b>4.5</b>	<b>4.3</b>	<b>4.7</b>	<b>0.10</b>
Q19	Prioritize, plan, and implement quality care.	104	4.5	4.3	4.8	0.12
Q20	Evaluate client responses to nursing interventions and alter care plans.	104	4.5	4.3	4.7	0.10
Q21	Use research findings to guide nursing care.	103	4.5	4.3	4.7	0.11
Q22	Access and use health care technology effectively.	104	4.7	4.5	4.9	0.11
Q23	Exercise sound clinical judgment.	104	4.5	4.3	4.8	0.12
Q24	Use data driven outcomes to evaluate and improve the care of clients.	104	4.5	4.3	4.7	0.11
Q25	Exhibit ethical behavior in all professional contacts with clients, peers, and society.	104	4.6	4.4	4.8	0.11
Q26	Make nursing decisions autonomously.	104	4.5	4.2	4.7	0.13

		PANEL SUPERVISORS				
VAR	LABEL	N	Mean	Lower 95% CL	Upper 95% CL	Std Err
Q27	Develop goal-directed interactions in collaboration with clients.	103	4.6	4.3	4.8	0.11
Q28	Apply knowledge of development across the life span in delivery of nursing care.	104	4.5	4.3	4.7	0.11
Q29	Practice from within a legal and ethical framework.	104	4.6	4.4	4.8	0.10
	<b>NURSING COMPETENCIES INDEX</b>	<b>104</b>	<b>4.5</b>	<b>4.3</b>	<b>4.7</b>	<b>0.10</b>
Q30	Consider clients' values and beliefs when planning for and providing care.	104	4.6	4.4	4.7	0.09
Q31	Support clients' effective coping behaviors.	104	4.6	4.4	4.8	0.09
Q32	Collaborate with members of the health care team to develop an interdisciplinary plan o	104	4.5	4.3	4.7	0.10
Q33	Use a variety of strategies to communicate with diverse groups and disciplines.	102	4.5	4.3	4.7	0.10
Q34	Establish a network of community relationships in order to provide continuity of client	102	4.5	4.3	4.7	0.10
Q35	Create appropriate systems and tools of communication across the continuum of care with	104	4.5	4.2	4.7	0.10
Q36	Use appropriate means of communication with clients and other members of the health car	104	4.5	4.3	4.7	0.10
Q37	Actively listen to clients and colleagues.	104	4.7	4.5	4.9	0.11
Q38	Help clients negotiate the health care system.	102	4.5	4.3	4.6	0.10
	<b>COMMUNICATION INDEX</b>	<b>104</b>	<b>4.5</b>	<b>4.3</b>	<b>4.7</b>	<b>0.09</b>



## APPENDIX H: MEAN RATINGS, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS - GRADUATE-SOURCE SUPERVISORS

VAR	LABEL	GRADUATE-SOURCE SUPERVISORS				
		N	Mean	Lower 95% CL	Upper 95% CL	Std Error
Q1	Extent familiar with daily work of EC graduate	312	6.3	6.2	6.5	0.07
Q2	Overall clinical competence of EC graduates	315	5.0	4.9	5.1	0.06
Q3	Overall quality of EC ADN program	305	4.9	4.8	5.1	0.06
Q4	Yes, Would you hire another EC graduate?	315	96	94	98	1.08
Q5	Yes, Would you recommend the EC program to others?	314	91	88	94	1.64
Q8	Accurately identify problems or issues.	313	5.2	5.1	5.4	0.07
Q9	Analyze and synthesize complex patterns of data to develop judgments.	309	5.0	4.9	5.1	0.07
Q10	Distinguish between credible and non-credible sources of information.	312	5.1	5.0	5.3	0.07
Q11	Generate alternative solutions for problems.	313	5.1	5.0	5.3	0.07
Q12	Make reasonable inferences from data/information.	312	5.2	5.1	5.3	0.07
Q13	Analyze an issue or problem from more than one perspective.	314	5.1	4.9	5.2	0.07
Q14	Question judgments made by others.	312	5.1	5.0	5.2	0.07
Q15	Distinguish statements of fact from value judgments.	314	5.1	5.0	5.2	0.07
Q16	Generate reasonable hypotheses based on the analysis and synthesis of information.	308	5.0	4.9	5.2	0.07
	<b>CRITICAL THINKING INDEX</b>	314	5.1	5.0	5.2	0.06
Q17	Apply principles, theories, and concepts from the sciences and humanities in the practice of nursing.	314	5.1	5.0	5.2	0.07
Q18	Are sensitive to differing values/beliefs of clients.	313	5.2	5.1	5.3	0.07
Q19	Prioritize, plan, and implement quality care.	313	5.2	5.1	5.4	0.07
Q20	Evaluate client responses to nursing interventions and alter care plans.	308	5.2	5.0	5.3	0.07
Q21	Use research findings to guide nursing care.	309	4.9	4.8	5.1	0.07
Q22	Access and use health care technology effectively.	313	5.3	5.1	5.4	0.07
Q23	Exercise sound clinical judgment.	314	5.2	5.1	5.3	0.07
Q24	Use data driven outcomes to evaluate and improve the care of clients.	311	5.0	4.8	5.1	0.07

		GRADUATE-SOURCE SUPERVISORS				
VAR	LABEL	N	Mean	Lower 95% CL	Upper 95% CL	Std Error
Q25	Exhibit ethical behavior in all professional contacts with clients, peers, and society.	313	5.3	5.2	5.4	0.07
Q26	Make nursing decisions autonomously.	313	5.2	5.0	5.3	0.07
Q27	Develop goal-directed interactions in collaboration with clients.	310	5.1	5.0	5.3	0.06
Q28	Apply knowledge of development across the life span in delivery of nursing care.	312	5.1	5.0	5.3	0.07
Q29	Practice from within a legal and ethical framework.	313	5.3	5.2	5.4	0.07
	<b>NURSING COMPETENCIES INDEX</b>	314	5.2	5.0	5.3	0.06
Q30	Consider clients' values and beliefs when planning for and providing care.	311	5.2	5.0	5.3	0.06
Q31	Support clients' effective coping behaviors.	310	5.1	5.0	5.2	0.06
Q32	Collaborate with members of the health care team to develop an interdisciplinary plan o	312	5.2	5.1	5.3	0.07
Q33	Use a variety of strategies to communicate with diverse groups and disciplines.	310	5.1	4.9	5.2	0.07
Q34	Establish a network of community relationships in order to provide continuity of client	299	5.0	4.9	5.1	0.07
Q35	Create appropriate systems and tools of communication across the continuum of care with	308	5.0	4.9	5.2	0.07
Q36	Use appropriate means of communication with clients and other members of the health car	309	5.1	5.0	5.3	0.07
Q37	Actively listen to clients and colleagues.	311	5.2	5.0	5.3	0.07
Q38	Help clients negotiate the health care system.	304	5.0	4.9	5.1	0.07
	<b>COMMUNICATION INDEX</b>	313	5.1	5.0	5.2	0.06



## APPENDIX I: PERCENT SAME OR HIGHER, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS - PANEL SUPERVISORS

VAR	LABEL	Response	PANEL				
			N	%	Lower 95% CL	Upper 95% CL	Std Err.
Q1	Extent familiar with daily work of EC graduate	Less familiar (1-3)	105	18	11	26	3.8
		More familiar (4-7)	105	82	74	89	3.8
Q2	Overall clinical competence of EC graduates	Lower (1-3)	105	18	11	26	3.8
		Same or higher (4-7)	105	82	74	89	3.8
Q3	Overall quality of EC ADN program	Lower (1-3)	105	19	11	27	3.9
		Same or higher (4-7)	105	81	73	89	3.9
Q4	Would you hire another EC graduate?	Yes	105	80	72	88	3.9
Q5	Would you recommend the EC program to others?	Yes	105	70	62	79	4.5
Q8	Accurately identify problems or issues.	Worse (1-3)	105	14	7	21	3.4
		Same or better (4-7)	105	85	78	92	3.5
Q9	Analyze and synthesize complex patterns of data to develop judgments.	Worse (1-3)	105	19	11	27	3.9
		Same or better (4-7)	105	80	72	88	3.9
Q10	Distinguish between credible and non-credible sources of information.	Worse (1-3)	105	13	7	19	3.2
		Same or better (4-7)	105	87	80	93	3.3
Q11	Generate alternative solutions for problems.	Worse (1-3)	105	15	8	22	3.5
		Same or better (4-7)	105	84	77	91	3.6
Q12	Make reasonable inferences from data/information.	Worse (1-3)	105	12	6	18	3.1
		Same or better (4-7)	105	88	81	94	3.2
Q13	Analyze an issue or problem from more than one perspective.	Worse (1-3)	105	15	8	22	3.5
		Same or better (4-7)	105	84	77	91	3.6
Q14	Question judgments made by others.	Worse (1-3)	105	15	8	22	3.4
		Same or better (4-7)	105	83	76	90	3.7
Q15	Distinguish statements of fact from value judgments.	Worse (1-3)	105	15	8	22	3.5
		Same or better (4-7)	105	84	77	91	3.7

VAR	LABEL	Response	PANEL				
			N	%	Lower 95% CL	Upper 95% CL	Std Err.
Q16	Generate reasonable hypotheses based on the analysis and synthesis of information.	Worse (1-3)	105	13	6	19	3.2
		Same or better (4-7)	105	86	79	93	3.4
	<b>CRITICAL THINKING INDEX</b>	<b>Worse (1-3)</b>	<b>104</b>	<b>13</b>	<b>6</b>	<b>19</b>	<b>3.3</b>
		<b>Same or better (4-7)</b>	<b>104</b>	<b>88</b>	<b>81</b>	<b>94</b>	<b>3.3</b>
Q17	Apply principles, theories, and concepts from the sciences and humanities in the practice of nursing.	Worse (1-3)	105	12	6	18	3.1
		Same or better (4-7)	105	88	81	94	3.2
Q18	Are sensitive to differing values/beliefs of clients.	Worse (1-3)	105	6	1	10	2.3
		Same or better (4-7)	105	92	87	98	2.6
Q19	Prioritize, plan, and implement quality care.	Worse (1-3)	105	15	8	22	3.5
		Same or better (4-7)	105	84	77	91	3.6
Q20	Evaluate client responses to nursing interventions and alter care plans.	Worse (1-3)	105	12	6	19	3.2
		Same or better (4-7)	105	86	80	92	3.3
Q21	Use research findings to guide nursing care.	Worse (1-3)	105	13	7	19	3.2
		Same or better (4-7)	105	86	79	93	3.4
Q22	Access and use health care technology effectively.	Worse (1-3)	105	11	5	17	3.0
		Same or better (4-7)	105	89	82	95	3.1
Q23	Exercise sound clinical judgment.	Worse (1-3)	105	14	7	21	3.4
		Same or better (4-7)	105	85	78	92	3.5
Q24	Use data driven outcomes to evaluate and improve the care of clients.	Worse (1-3)	105	12	6	19	3.2
		Same or better (4-7)	105	87	80	93	3.3
Q25	Exhibit ethical behavior in all professional contacts with clients, peers, and society.	Worse (1-3)	105	6	1	10	2.3
		Same or better (4-7)	105	93	88	98	2.4
Q26	Make nursing decisions autonomously.	Worse (1-3)	105	20	12	28	3.9
		Same or better (4-7)	105	79	71	87	4.0
Q27	Develop goal-directed interactions in collaboration with clients.	Worse (1-3)	105	12	6	18	3.1
		Same or better (4-7)	105	87	80	93	3.3



VAR	LABEL	Response	PANEL				
			N	%	Lower 95% CL	Upper 95% CL	Std Err.
Q28	Apply knowledge of development across the life span in delivery of nursing care.	Worse (1-3)	105	12	6	18	3.1
		Same or better (4-7)	105	88	81	94	3.2
Q29	Practice from within a legal and ethical framework.	Worse (1-3)	105	5	1	9	2.1
		Same or better (4-7)	105	95	91	99	2.3
	<b>NURSING COMPETENCIES INDEX</b>	<b>Worse (1-3)</b>	<b>104</b>	<b>11</b>	<b>5</b>	<b>17</b>	<b>3.0</b>
		<b>Same or better (4-7)</b>	<b>104</b>	<b>89</b>	<b>83</b>	<b>95</b>	<b>3.0</b>
Q30	Consider clients' values and beliefs when planning for and providing care.	Worse (1-3)	105	3	0	6	1.6
		Same or better (4-7)	105	96	92	100	1.9
Q31	Support clients' effective coping behaviors.	Worse (1-3)	105	5	1	9	2.1
		Same or better (4-7)	105	94	90	99	2.3
Q32	Collaborate with members of the health care team to develop an interdisciplinary plan of care.	Worse (1-3)	105	10	5	16	3.0
		Same or better (4-7)	105	89	82	95	3.1
Q33	Use a variety of strategies to communicate with diverse groups and disciplines.	Worse (1-3)	105	9	3	14	2.7
		Same or better (4-7)	105	88	82	94	3.1
Q34	Establish a network of community relationships in order to provide continuity of client.	Worse (1-3)	105	11	5	17	3.0
		Same or better (4-7)	105	87	80	93	3.3
Q35	Create appropriate systems and tools of communication across the continuum of care with clients and other members of the health care team.	Worse (1-3)	105	12	6	18	3.1
		Same or better (4-7)	105	87	81	93	3.2
Q36	Use appropriate means of communication with clients and other members of the health care team.	Worse (1-3)	105	10	5	16	3.0
		Same or better (4-7)	105	89	82	95	3.1
Q37	Actively listen to clients and colleagues.	Worse (1-3)	105	7	2	12	2.4
		Same or better (4-7)	105	93	88	98	2.6

			PANEL				
VAR	LABEL	Response	N	%	Lower 95% CL	Upper 95% CL	Std Err.
Q38	Help clients negotiate the health care system.	Worse (1-3)	105	10	4	15	2.9
		Same or better (4-7)	105	87	81	93	3.2
	<b>COMMUNICATION INDEX</b>	<b>Worse (1-3)</b>	<b>104</b>	<b>6</b>	<b>1</b>	<b>10</b>	<b>2.3</b>
		<b>Same or better (4-7)</b>	<b>104</b>	<b>94</b>	<b>90</b>	<b>99</b>	<b>2.3</b>



## APPENDIX J: PERCENT SAME OR HIGHER, CONFIDENCE INTERVALS (CL) AND STANDARD ERRORS – GRADUATE-SOURCE SUPERVISORS

		GRADUATE-SOURCE					
VAR	LABEL	Response	N	%	Lower 95% CL	Upper 95% CL	Std Err
Q1	Extent familiar with daily work of EC graduate	Less familiar (1-3)	312	4	2	6	1.1
		More familiar (4-7)	312	96	94	98	1.1
Q2	Overall clinical competence of EC graduates	Lower (1-3)	315	6	3	9	1.3
		Same or higher (4-7)	315	94	91	97	1.3
Q3	Overall quality of EC ADN program	Lower (1-3)	313	6	3	9	1.4
		Same or higher (4-7)	313	92	89	95	1.6
Q4	Would you hire another EC graduate?	Yes	315	96	94	98	1.1
Q5	Would you recommend the EC program to others?	Yes	314	91	88	94	1.6
Q8	Accurately identify problems or issues.	Worse (1-3)	313	4	1	6	1.0
		Same or better (4-7)	313	97	95	99	1.0
Q9	Analyze and synthesize complex patterns of data to develop judgments.	Worse (1-3)	313	8	5	11	1.5
		Same or better (4-7)	313	92	89	95	1.6
Q10	Distinguish between credible and non-credible sources of information.	Worse (1-3)	313	3	1	4	0.9
		Same or better (4-7)	313	97	95	99	0.9
Q11	Generate alternative solutions for problems.	Worse (1-3)	313	6	3	8	1.3
		Same or better (4-7)	313	94	92	97	1.3

		GRADUATE-SOURCE					
VAR	LABEL	Response	N	%	Lower 95% CL	Upper 95% CL	Std Err
Q12	Make reasonable inferences from data/information.	Worse (1-3)	313	4	2	6	1.1
		Same or better (4-7)	313	95	93	97	1.1
Q13	Analyze an issue or problem from more than one perspective.	Worse (1-3)	314	7	4	10	1.5
		Same or better (4-7)	314	93	90	96	1.5
Q14	Question judgments made by others.	Worse (1-3)	314	4	2	6	1.1
		Same or better (4-7)	314	95	93	98	1.2
Q15	Distinguish statements of fact from value judgments.	Worse (1-3)	314	5	3	7	1.2
		Same or better (4-7)	314	95	93	97	1.2
Q16	Generate reasonable hypotheses based on the analysis and synthesis of information.	Worse (1-3)	312	7	4	10	1.5
		Same or better (4-7)	312	92	89	95	1.6
	<b>CRITICAL THINKING INDEX</b>	<b>Worse (1-3)</b>	<b>314</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>1.0</b>
		<b>Same or better (4-7)</b>	<b>314</b>	<b>96</b>	<b>94</b>	<b>99</b>	<b>1.0</b>
Q17	Apply principles, theories, and concepts from the sciences and humanities in the practi	Worse (1-3)	314	4	2	6	1.1
		Same or better (4-7)	314	96	94	98	1.1
Q18	Are sensitive to differing values/beliefs of clients.	Worse (1-3)	314	2	0	3	0.7
		Same or better (4-7)	314	99	97	100	0.8
Q19	Prioritize, plan, and implement quality care.	Worse (1-3)	314	7	4	10	1.4
		Same or better (4-7)	314	93	90	96	1.5
Q20	Evaluate client responses to nursing interventions and alter care plans.	Worse (1-3)	314	4	2	6	1.1

		GRADUATE-SOURCE					
VAR	LABEL	Response	N	%	Lower 95% CL	Upper 95% CL	Std Err
		Same or better (4-7)	314	94	92	97	1.3
Q21	Use research findings to guide nursing care.	Worse (1-3)	314	7	4	9	1.4
		Same or better (4-7)	314	92	89	95	1.6
Q22	Access and use health care technology effectively.	Worse (1-3)	314	2	0	3	0.7
		Same or better (4-7)	314	99	97	100	0.8
Q23	Exercise sound clinical judgment.	Worse (1-3)	314	7	4	10	1.3
		Same or better (4-7)	314	94	92	97	1.3
Q24	Use data driven outcomes to evaluate and improve the care of clients.	Worse (1-3)	314	6	3	8	1.3
		Same or better (4-7)	314	92	89	95	1.4
Q25	Exhibit ethical behavior in all professional contacts with clients, peers, and society.	Worse (1-3)	313	1	0	2	0.5
		Same or better (4-7)	313	100	99	100	0.5
Q26	Make nursing decisions autonomously.	Worse (1-3)	313	6	4	9	1.4
		Same or better (4-7)	313	95	92	98	1.4
Q27	Develop goal-directed interactions in collaboration with clients.	Worse (1-3)	313	2	1	4	0.8
		Same or better (4-7)	313	97	95	99	1.0
Q28	Apply knowledge of development across the life span in delivery of nursing care.	Worse (1-3)	314	2	0	3	0.8
		Same or better (4-7)	314	97	96	99	0.9
Q29	Practice from within a legal and ethical framework.	Worse (1-3)	314	1	0	2	0.5
		Same or better (4-7)	314	99	97	100	0.6

		GRADUATE-SOURCE					
VAR	LABEL	Response	N	%	Lower 95% CL	Upper 95% CL	Std Err
	<b>NURSING COMPETENCIES INDEX</b>	<b>Worse (1-3)</b>	<b>314</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>0.7</b>
		<b>Same or better (4-7)</b>	<b>314</b>	<b>98</b>	<b>97</b>	<b>100</b>	<b>0.7</b>
Q30	Consider clients' values and beliefs when planning for and providing care.	Worse (1-3)	312	0	0	1	0.3
		Same or better (4-7)	312	100	99	100	0.5
Q31	Support clients' effective coping behaviors.	Worse (1-3)	312	1	0	2	0.6
		Same or better (4-7)	312	99	98	100	0.7
Q32	Collaborate with members of the health care team to develop an interdisciplinary plan of care.	Worse (1-3)	312	3	1	5	1.0
		Same or better (4-7)	312	97	95	99	1.0
Q33	Use a variety of strategies to communicate with diverse groups and disciplines.	Worse (1-3)	311	4	1	6	1.0
		Same or better (4-7)	311	97	95	99	1.1
Q34	Establish a network of community relationships in order to provide continuity of client care.	Worse (1-3)	311	3	1	5	1.0
		Same or better (4-7)	311	94	91	97	1.4
Q35	Create appropriate systems and tools of communication across the continuum of care with clients and other members of the health care team.	Worse (1-3)	312	4	1	6	1.0
		Same or better (4-7)	312	96	94	98	1.2
Q36	Use appropriate means of communication with clients and other members of the health care team.	Worse (1-3)	310	3	1	5	1.0
		Same or better (4-7)	310	96	94	99	1.1

		GRADUATE-SOURCE					
VAR	LABEL	Response	N	%	Lower 95% CL	Upper 95% CL	Std Err
Q37	Actively listen to clients and colleagues.	Worse (1-3)	312	4	1	6	1.0
		Same or better (4-7)	312	97	95	99	1.1
Q38	Help clients negotiate the health care system.	Worse (1-3)	311	4	1	6	1.0
		Same or better (4-7)	311	94	92	97	1.3
	<b>COMMUNICATION INDEX</b>	<b>Worse (1-3)</b>	<b>313</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0.6</b>
		<b>Same or better (4-7)</b>	<b>313</b>	<b>99</b>	<b>98</b>	<b>100</b>	<b>0.6</b>