



Illinois Education Research Council

Examining the Chicago Early Childhood Teacher Pipeline

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Purpose of the Study

To better understand reasons that may be preventing early childhood education students from progressing through the higher education pipeline.

Two-pronged approach:

- Work with Chicago higher education institutions to conduct detailed analysis of the enrollment and one-year persistence data for their Fall 2006 early childhood education students.

CSU

Columbia College

DePaul

Dominican

Erikson

NEIU

NLU

Roosevelt

St. Xavier

UIC

- Survey students about conditions (e.g., student circumstances, program design) preventing them from progressing through the pipeline.



Pipeline Analysis Methodology

- **10 Chicago institutions provided demographic and enrollment data for students identified as “interested” or enrolled in Early Childhood Education program in Fall 2006**
 - 1,308 students were identified across all institutions
 - Pre-Candidates (interested): 678 (52%)
 - Candidates (enrolled): 630 (48%)
- **Tracked their progress to Fall 2007 and grouped the students by 5 outcomes**
 - Candidates – officially enrolled (n=395)
 - Graduates – graduated between Fall 2006 and Fall 2007 (n=204)
 - Pre-Candidates – “interested” (n=292)
 - Enrolled, but not in ECE – students who switched to another teacher preparation program or to another major at the University (n=112)
 - Not enrolled in University – not enrolled in the University in Fall 2007 (n=305)



Enrollment Counts for Ten Participating Institutions

	Undergraduate Program	Graduate Program	Total
Institution 1:	*	24	24
Institution 2:	*	30	30
Institution 3:	65	**	65
Institution 4:	35	33	68
Institution 5:	74	4	78
Institution 6:	52	39	91
Institution 7:	57	58	115
Institution 8:	200	55	255
Institution 9:	206	74	280
Institution 10:	302	**	302
TOTAL	991	317	1,308

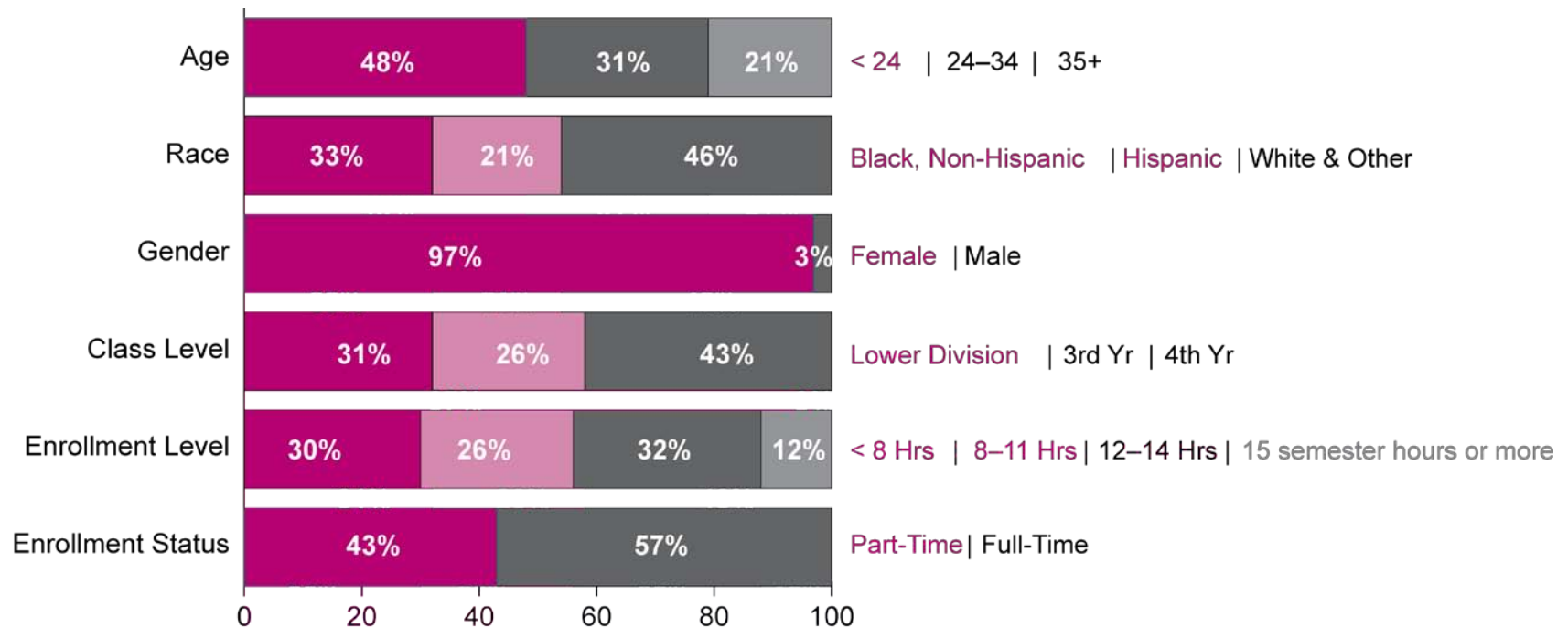
* No undergraduate program

** No graduate program



Student Demographic and Enrollment Characteristics for All Institutions Combined

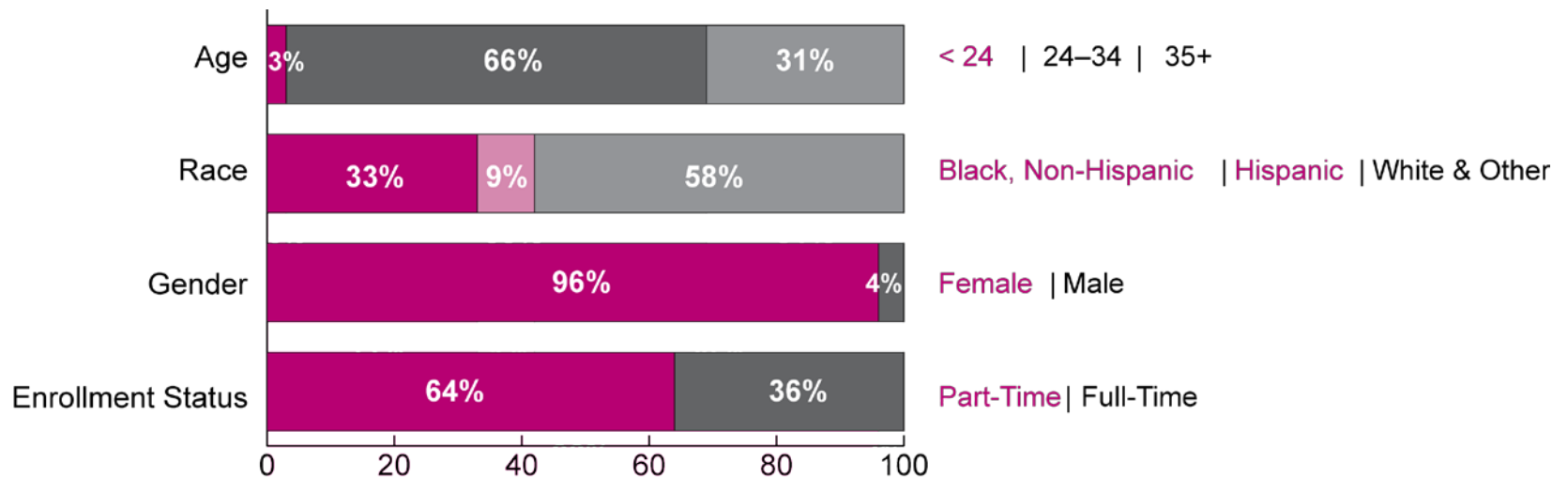
Undergraduate Programs (N=991)





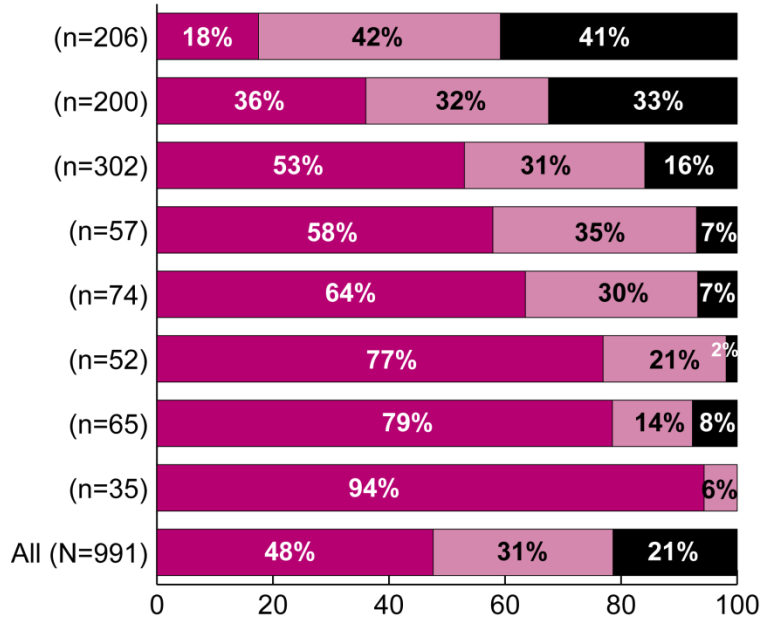
Student Demographic and Enrollment Characteristics for All Institutions Combined

Graduate Programs (N=317)

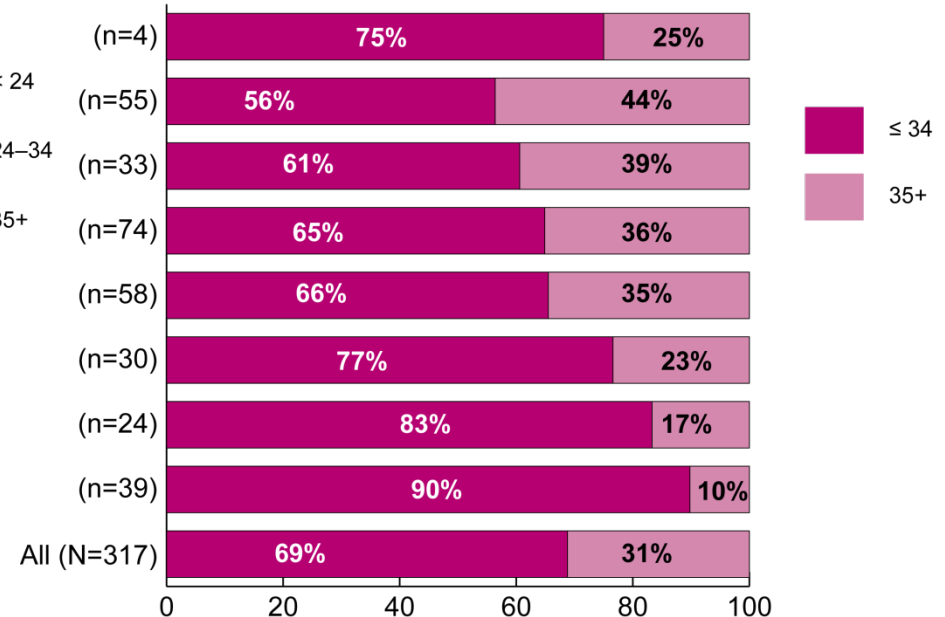


Age Level by Institutions

Undergraduate Programs



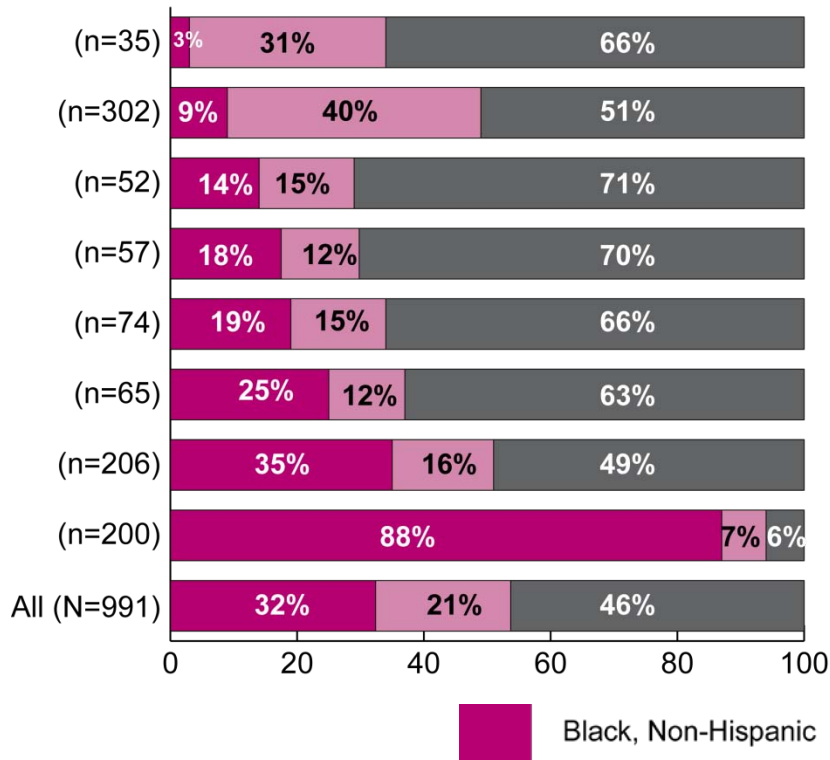
Graduate Programs



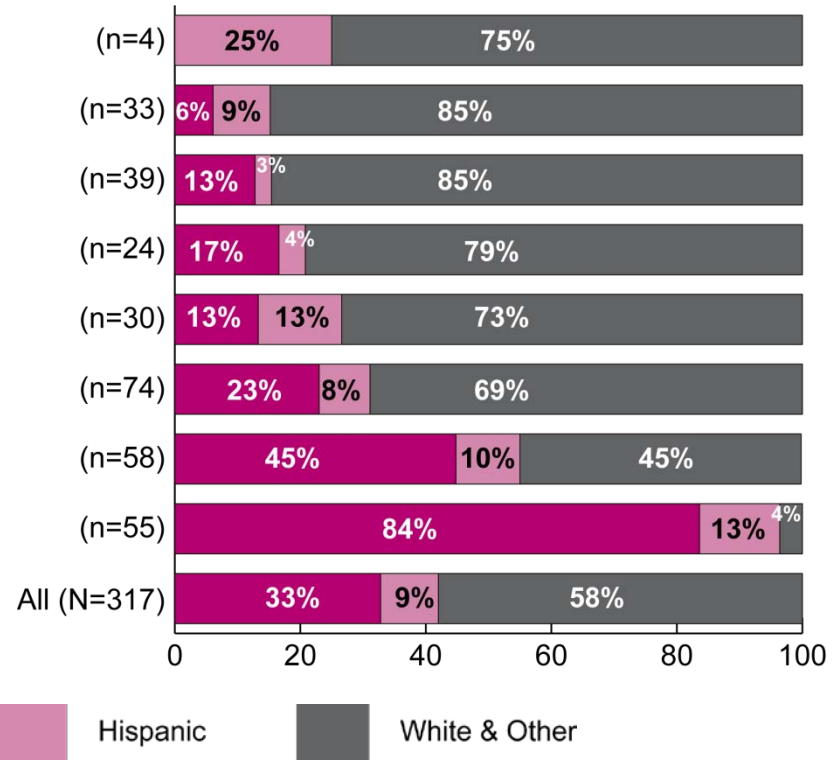
Varying distributions of students' ages signify different needs and issues regarding student persistence across the ten institutions.

Race/Ethnicity by Institutions

Undergraduate Programs

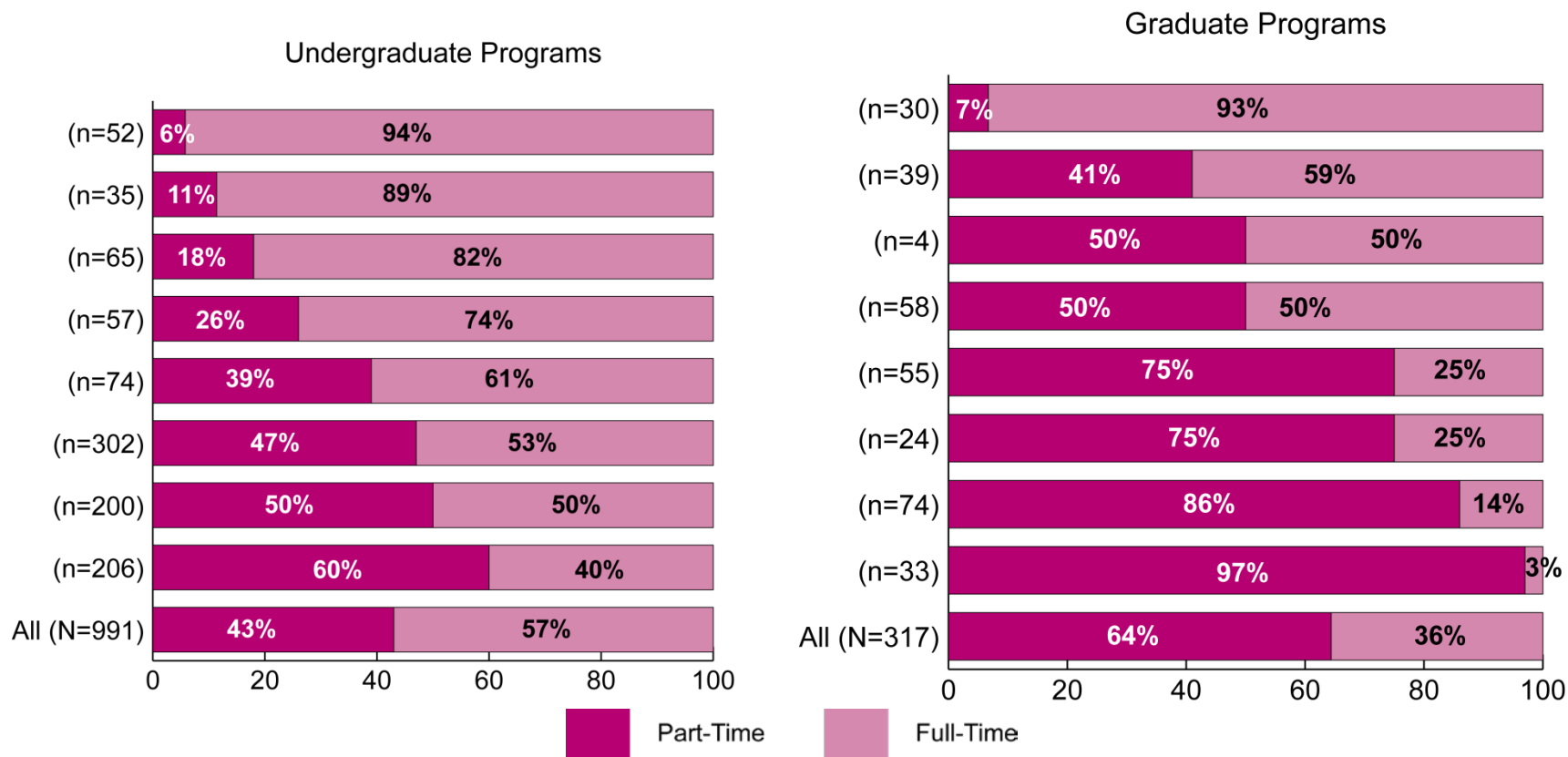


Graduate Programs



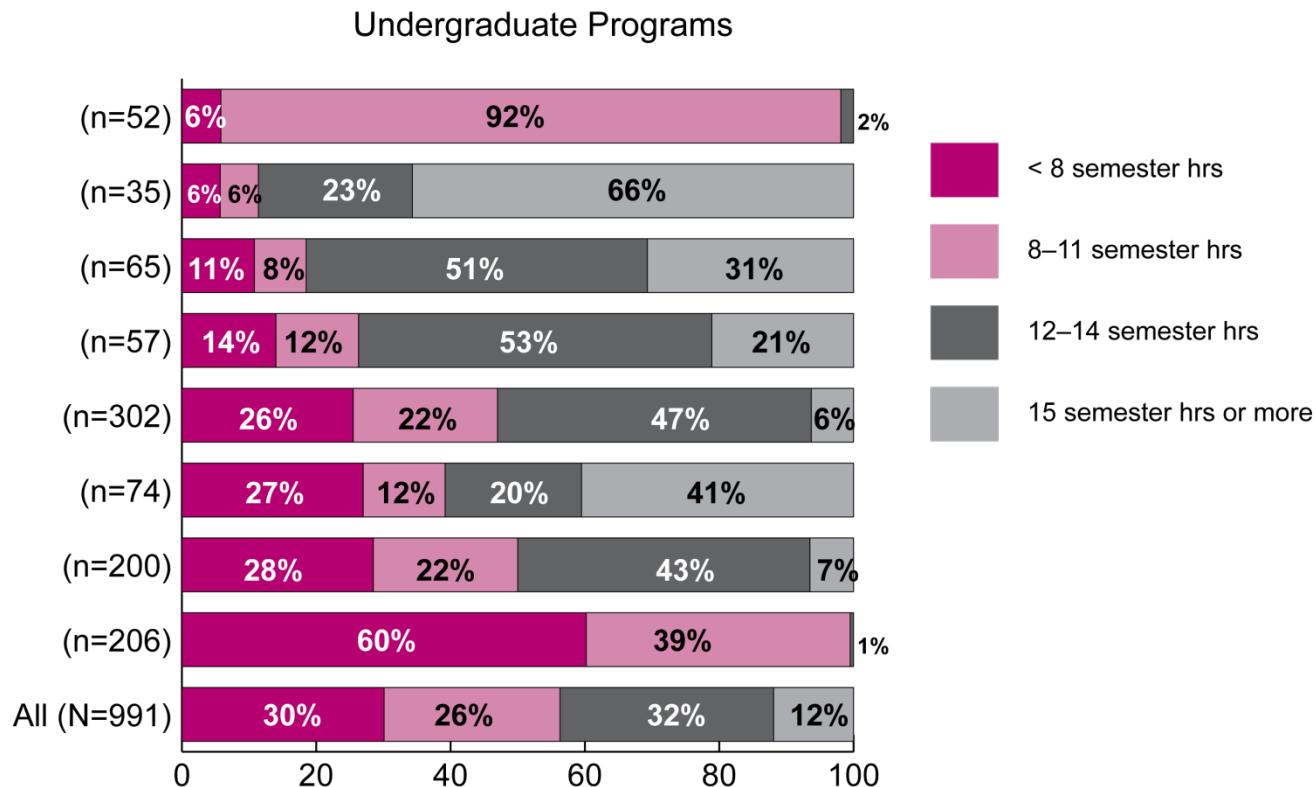
Most institutions have a mix of race/ethnic groups, with the majority of students being white. There are fewer Hispanic students at the graduate level.

Full-Time/Part-Time Status in Fall 2006 by Institutions



Institutions with a high percentage of part-time students will require more time to produce ECE graduates.

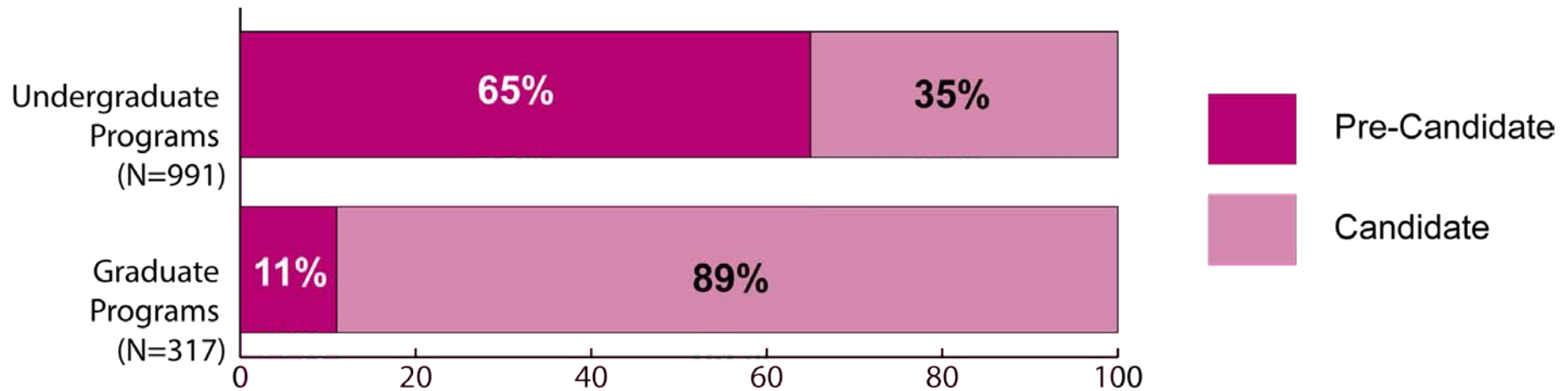
Enrollment Level in Fall 2006 by Institutions



Overall, nearly one-third of undergraduate students enrolled less than eight semester hours in Fall 2006.

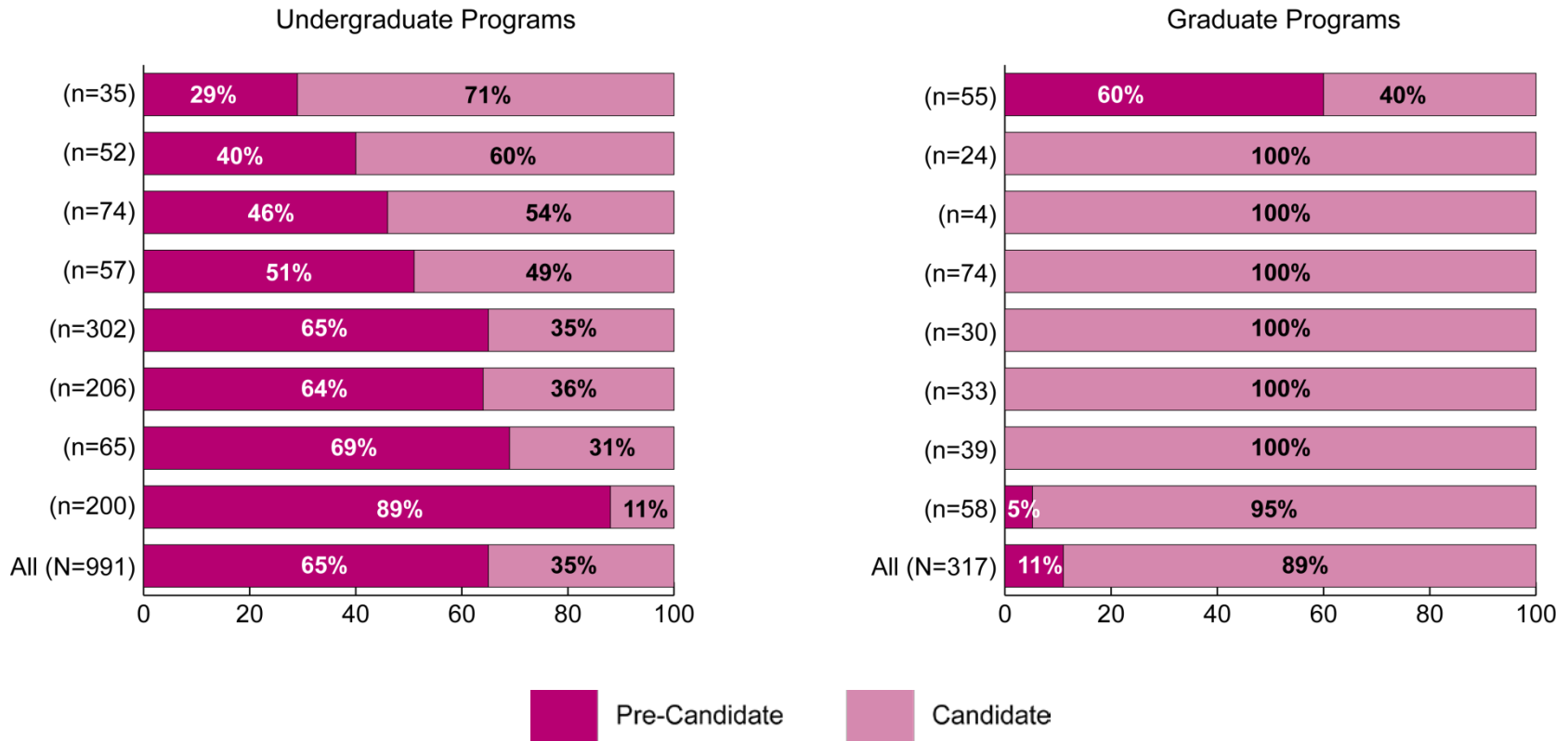


Number and Percent of Students in Early Childhood Education in Fall 2006, All Institutions Combined



	Pre-Candidates		Candidates		Total	
	N	%	N	%	N	%
Undergraduate Programs	642	65%	349	35%	991	100%
Graduate Programs	36	11%	281	89%	317	100%
TOTAL	678	100%	630	100%	1,308	100%

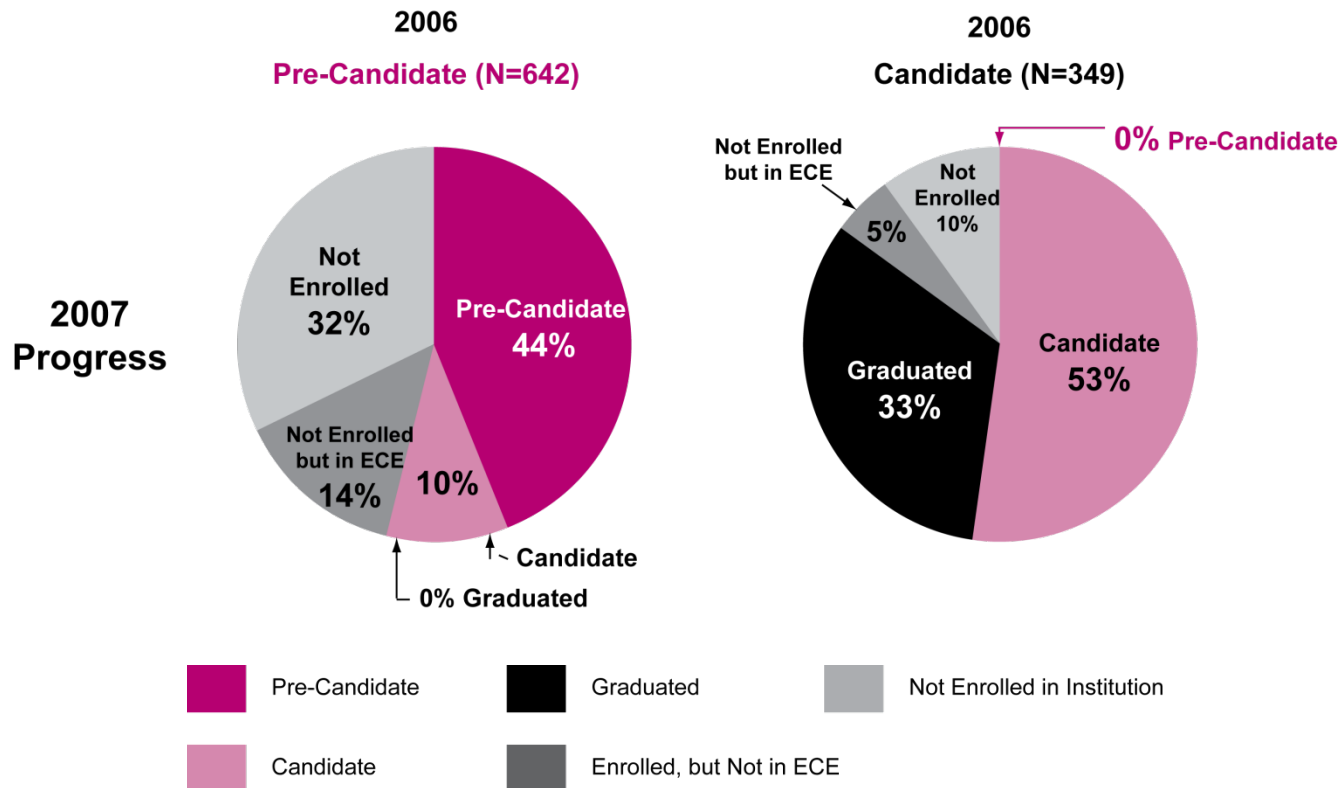
Fall 2006 Starting Status by Institutions



Overall, less than half of undergraduate students are Candidates. This translates to 349 out of 991 undergraduate (35%) officially admitted in an ECE program. For graduate programs, 281 out of 317 students (89%) are officially admitted in an ECE program.

Fall 2007 Outcomes for Pre-Candidates and Candidates for All Institutions Combined

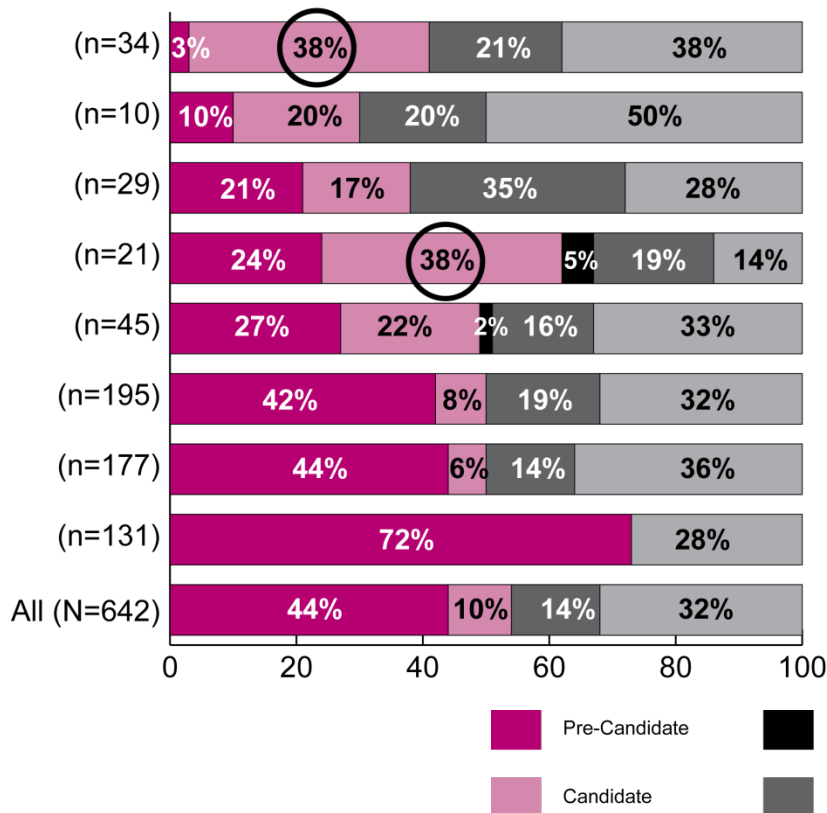
Undergraduate Programs (N=991)



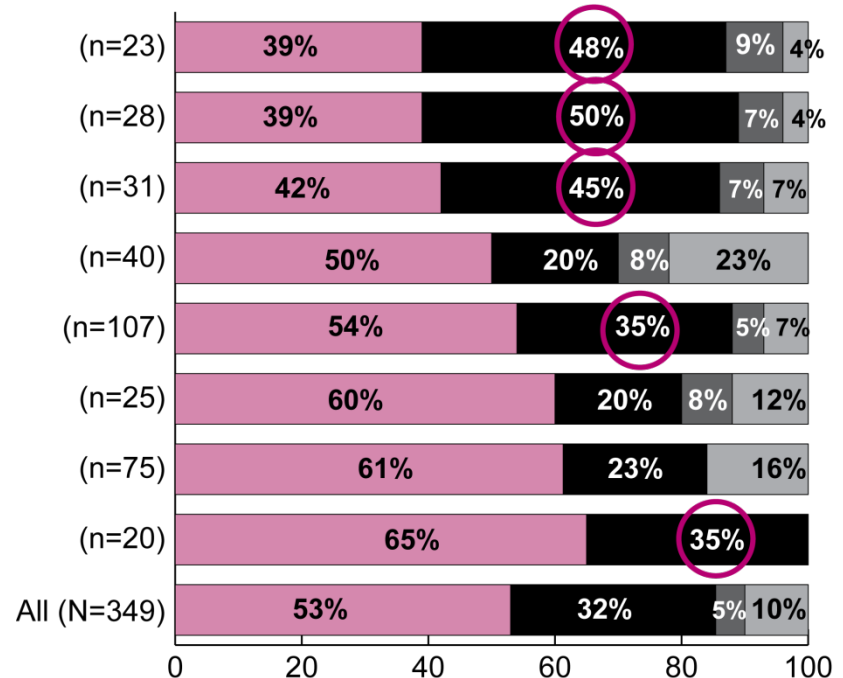
Pre-Candidates are less likely to progress to their next step in their program and more likely to “leak” to another major or out of the institution.

2007 Outcome for Undergraduate Students

2006 Pre-Candidates



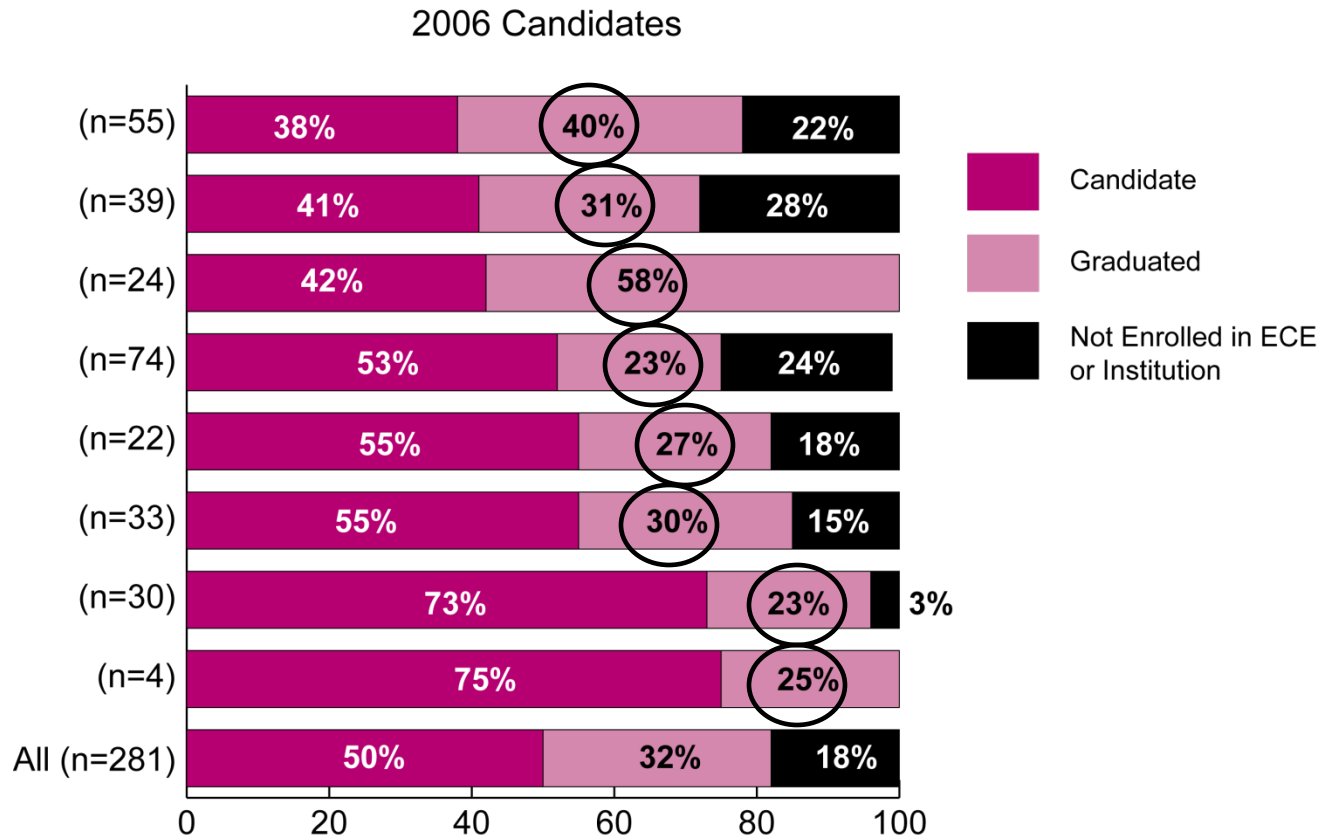
2006 Candidates



➤ Two institutions have over one-third of their Pre-Candidates progressing to Candidate status.

➤ Five institutions have one-third to one-half of their Candidates progressing to Graduation.

2007 Outcome for Graduate Students



All institutions have nearly one-quarter or more of the graduate students progressing to graduation one year later.



Summary of Pipeline Data Analysis

- Approximately 1,300 students from these 10 Chicago institutions are in the pipeline for ECE teachers. 630 students are officially admitted into the ECE program.
- Students are predominantly female and represent a mix of racial/ethnic groups, primarily white, black and Hispanic students. On average, UG students are older than “traditional age” students (average age=27.8).
- The Chicago ECE pipeline is slow-moving due in part to a large percentage of part-time students (43% of UG students enrolled part-time).
- The high percentage of Pre-Candidates also impacts the flow of the pipeline (65% of UG students are Pre-C) given that Pre-C are less likely to progress to their next step in the pipeline.
- No two institutions are alike (in our study) which creates challenges for developing state-wide policies to impact increasing the number of students moving through the pipeline.



Survey with Early Childhood Education Students

Survey Methodology

- Timeframe: August – November 2008
- Surveyed a stratified sample based on 2007 Outcome:
 - PreC, Not in EC, Not in Univ: 709
 - Cand & Grad (1/2 of group): + 299

1,008 → 908 were deliverable
- Web- and paper-version survey
- Long and short versions of the survey
- Multiple contacts: initial postcard, introduction letter, email 1st reminder, letter 2nd reminder and paper survey, email 3rd reminder, letter 4th reminder and short paper survey, final postcard 5th reminder
- Incentive: 40 \$25 gift cards to Borders
- 207 completed surveys → 23% response rate



Mismatch on 2007 Enrollment Status

Student Survey Response	Institutional Data for 2007 Enrollment Status					
	Pre-Candidate	Enrolled but not in ECE	Not Enrolled in University	Candidate	Graduated	<i>Student Response Total</i>
Pre-Candidate	16	1	6	1	0	24
Enrolled, but not in ECE	7	9	4	1	0	21
Not Enrolled in Univ	0	0	23	0	0	23
Candidate	35	2	18	45	5	105
Graduated	3	1	4	3	23	34
<i>Institution Total</i>	61	13	55	50	28	207

Large disparities exist between students' perceptions and institutions' records for 2007 enrollment status, especially for Pre-Candidates.

Demographics of 2006 Cohort

Undergraduate Level	2007 Status		
	Pre-Candidate	Enrolled, but Not in ECE & Not Enrolled	Candidate & Graduated
Race †	(n=54)	(n=53)	(n=55)
Black, Non-Hispanic	56%	32%	20%
Hispanic	17%	23%	22%
White & Other	28%	45%	58%
Age as of 2006	(n=54)	(n=53)	(n=55)
Mean age †	32.9	31.8	26.7
Median age	31	27	23
Language Fluency	(n=52)	(n=49)	(n=52)
English	90%	86%	94%
Spanish	18%	23%	18%

† p<.05



Demographics of 2006 Cohort

Undergraduate Level	2007 Status		
	Pre-Candidate	Enrolled, but Not in ECE & Not Enrolled	Candidate & Graduated
Marital Status †	(n=44)	(n=34)	(n=37)
Married	39%	18%	22%
Never Married	46%	59%	73%
Widowed/Divorced/Separated	16%	24%	*
Children 6 yrs and younger †	(n=47)	(n=38)	(n=39)
Yes	68%	40%	23%
2007 Income (annual gross) †	(n=53)	(n=49)	(n=51)
No income from employment	*	*	*
Less than \$20K	32%	39%	39%
\$20K - \$29,999	38%	20%	16%
\$30K - \$39,999	*	*	16%
\$40K or above	*	*	18%
prefer not to answer	*	20%	*

Employment in Fall 2006

Undergraduate Level	2007 Status		
	Pre-Candidate	Enrolled, but Not in ECE & Not Enrolled	Candidate & Graduated
Number of worked hours in a week †	(n=49)	(n=47)	(n=47)
None	19%	21%	23%
1 – 10	*	*	15%
11 – 20	*	15%	30%
21 – 30	12%	*	*
more than 30 hours	57%	43%	26%
Job was related to Early Childhood †	(n=40)	(n=37)	(n=36)
Yes	55%	46%	36%

† p<.05

* ≤ 5 respondents

Fall Enrollment for 2006 Cohort

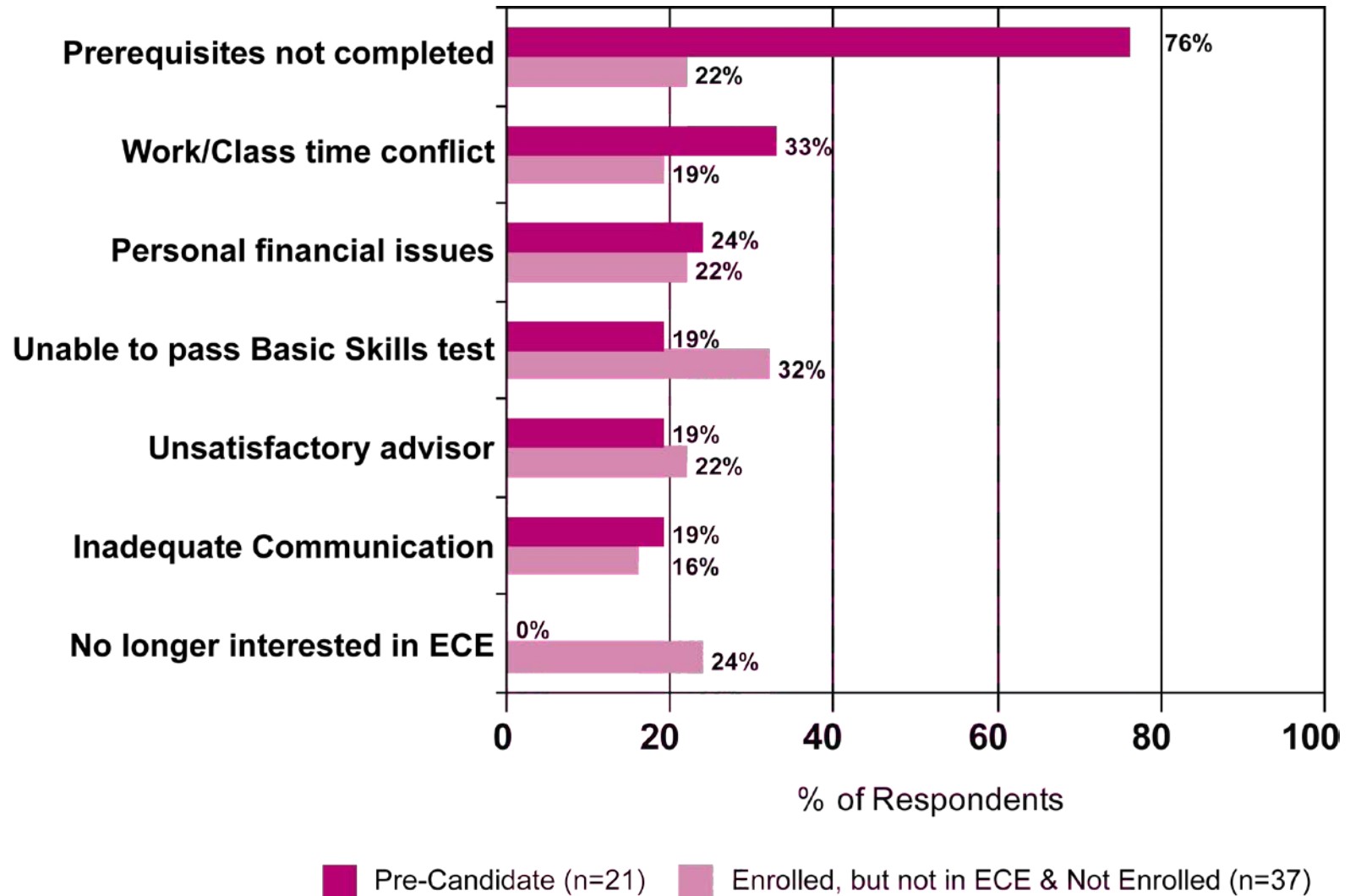
Undergraduate Level	2007 Status		
	Pre-Candidate	Enrolled, but Not in ECE & Not Enrolled	Candidate & Graduated
2006 Enrollment Status †	(n=54)	(n=53)	(n=55)
Part-Time	57%	45%	33%
Full-Time	43%	55%	67%
2006 Enrolled Semester Hrs †	(n=54)	(n=53)	(n=55)
< 8 semester hours	46%	32%	20%
8 - 11 semester hours	30%	26%	38%
12 - 14 semester hours	19%	30%	22%
≥ 15 semester hours	*	11%	20%

† p<.05 * ≤ 5 respondents



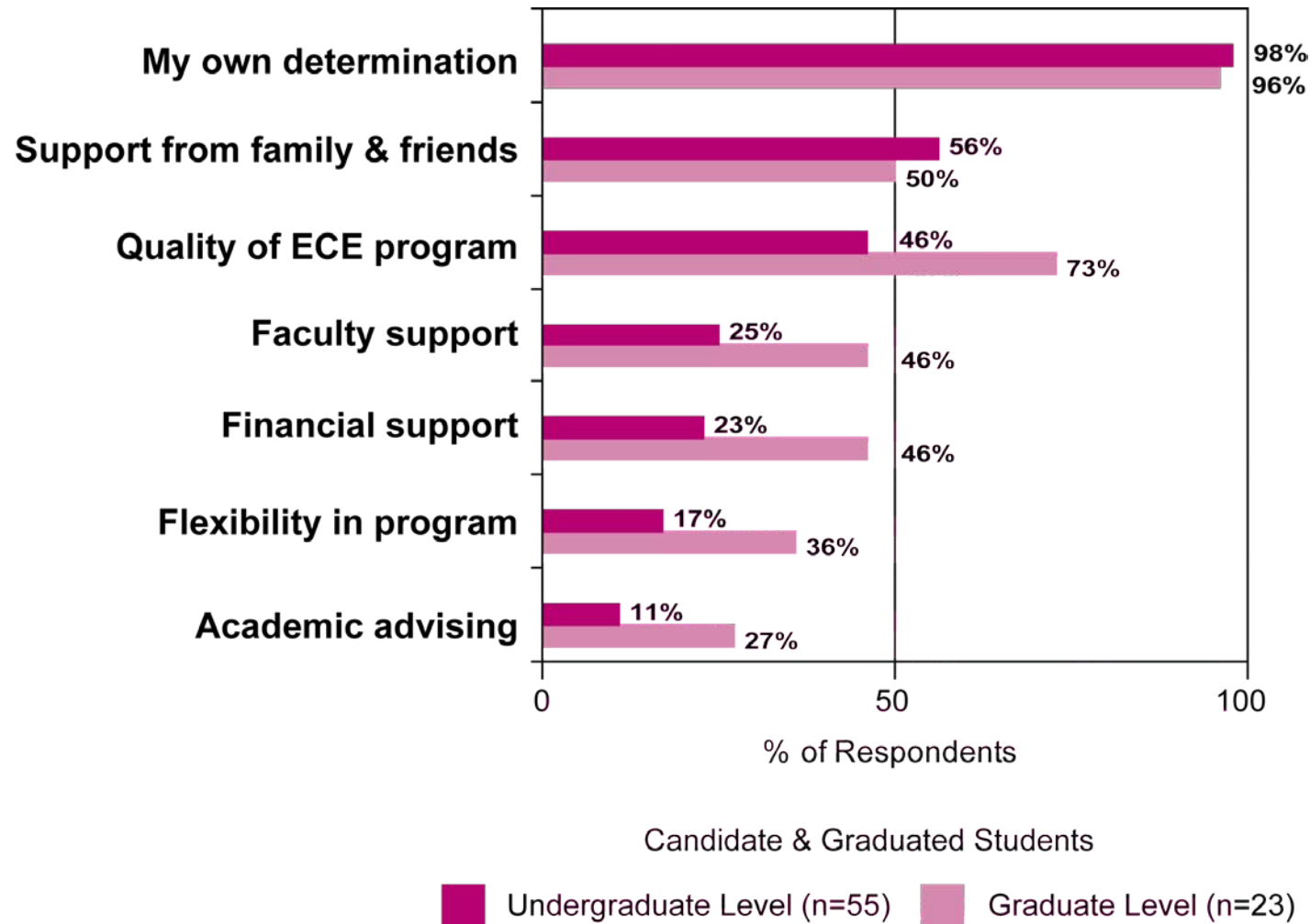
Reasons for not being enrolled in Early Childhood Education program in Fall 2007

Top 3 Reasons for Not Enrolled in ECE program in Fall 2007 (Undergraduates)





Major Influence for Staying in Program/ Graduated from ECE program in Fall 2007





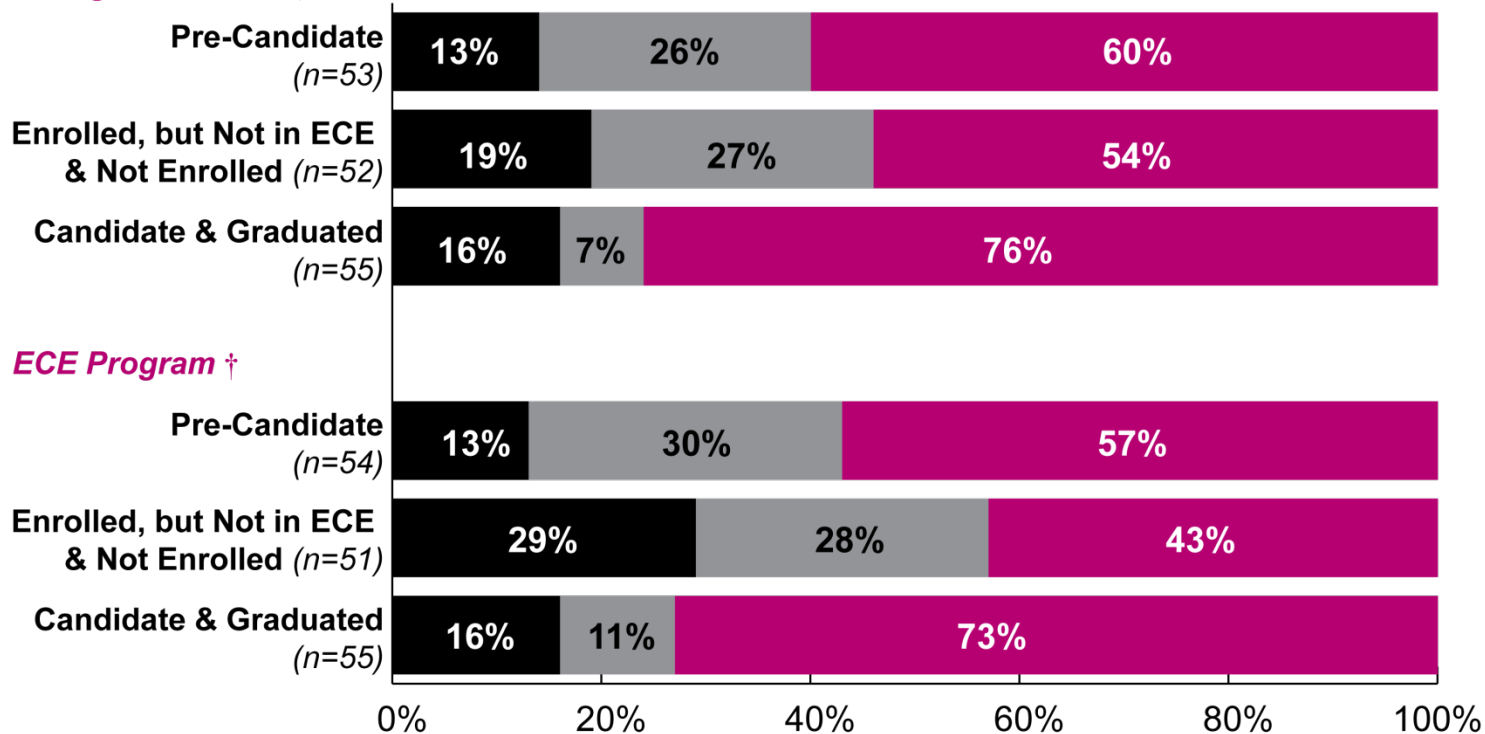
Other Factors Related to 2007 Enrollment Status

- Attitudes about college experience
- Supports services
- College Readiness

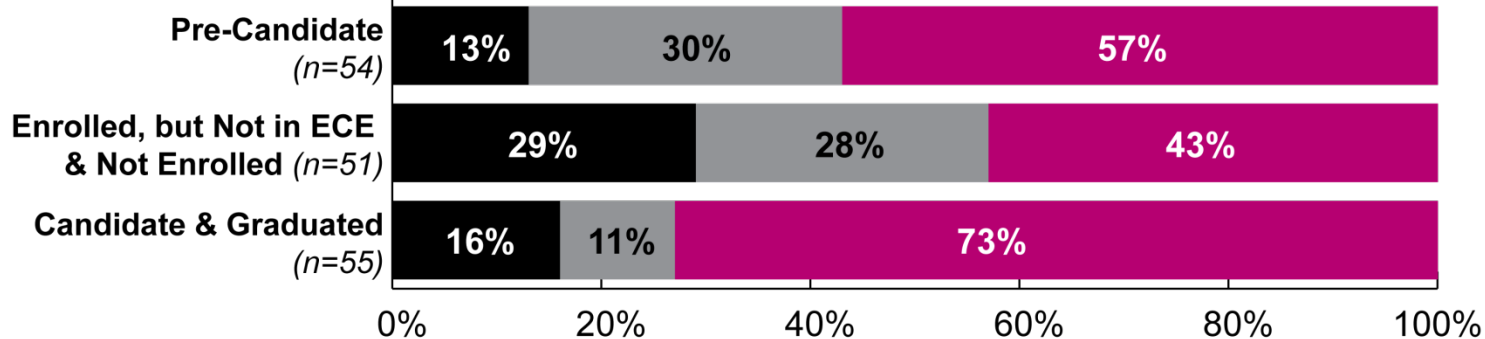
Satisfaction with Experience – Undergraduate Programs

Undergraduate Programs

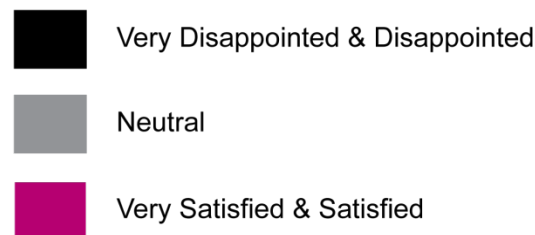
College Experience †



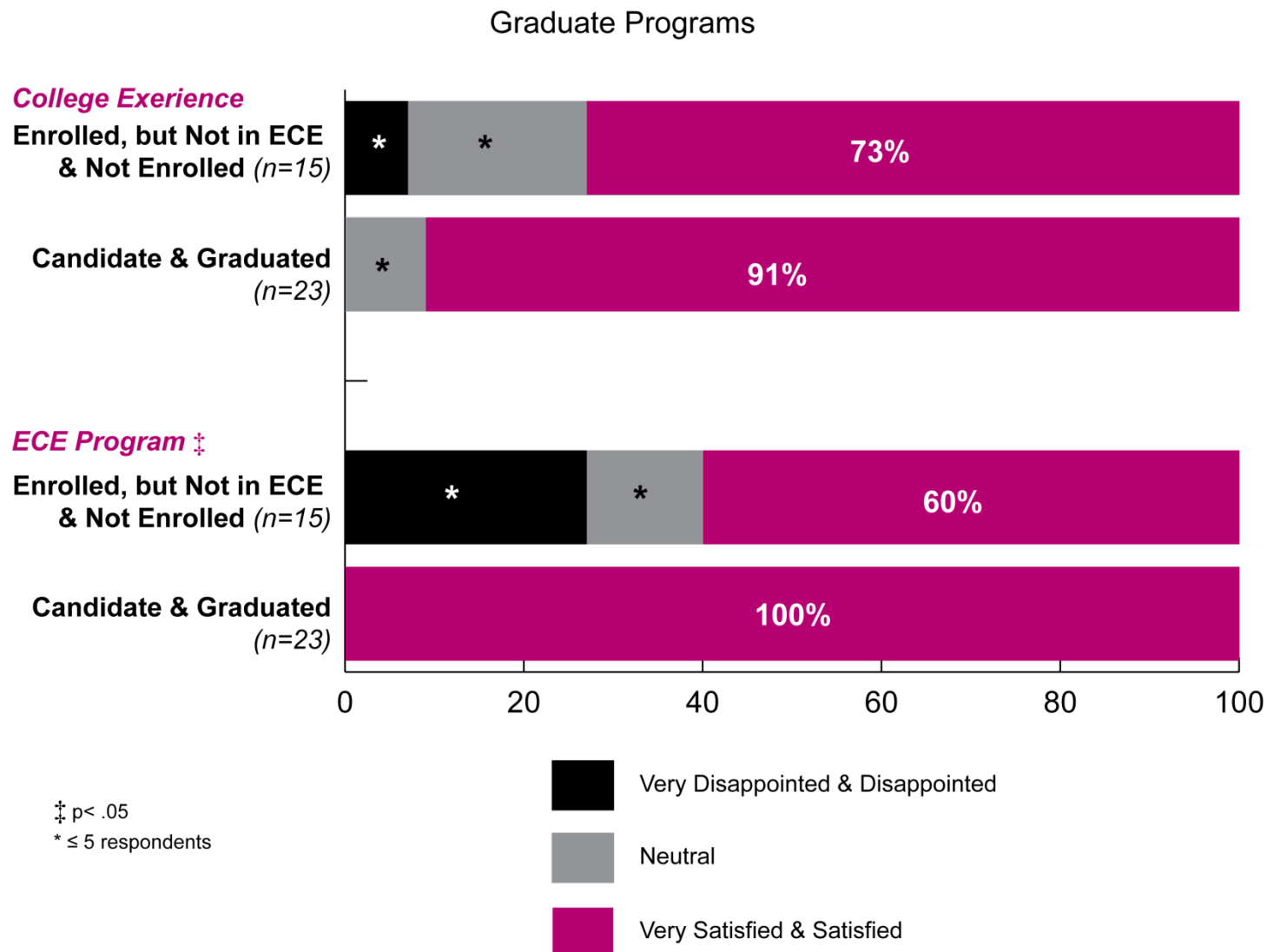
ECE Program †



† p < .05



Satisfaction with Experience – Graduate Programs



Available Support Services

	Number of Institutions (n = 10)
ISBE Basic Skills Test	7
ISBE Content Test	5
APT Test	5

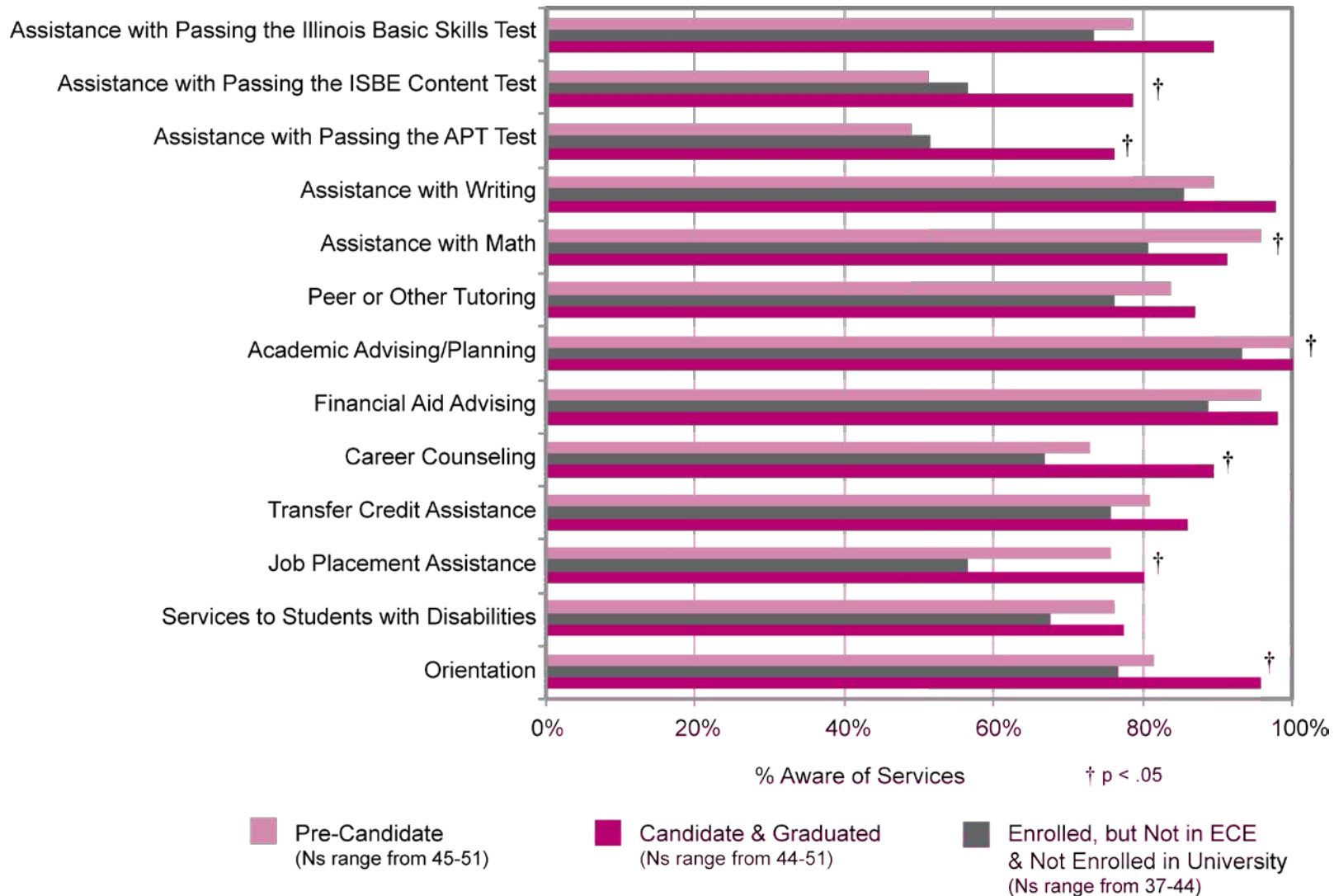
Writing	10
Math	9
Tutoring	9

Academic Advising/Planning	10
Financial Aid	10
Career Counseling/Services	10
Transfer assistance	9
Job Placement (e.g., job listings)	6

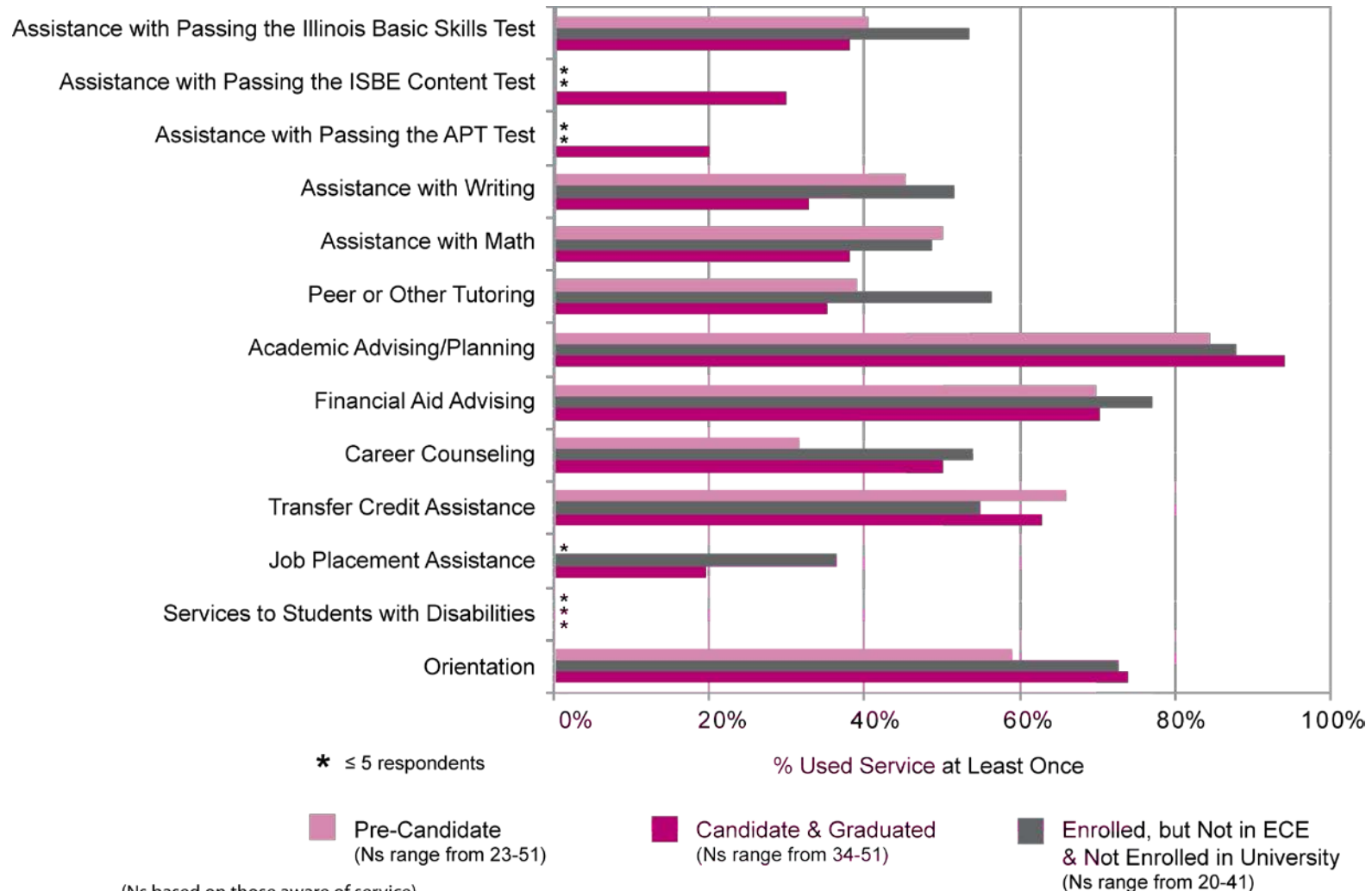
	Number of Institutions (n = 10)
Services for students with disabilities	10
Services for low-income, 1 st generation students	8
Services for international students	8
Services for minority students	7
Services for adult students	7

Orientation	9
First Year Courses/Seminar	8
Bridge/Summer programs for transition	7

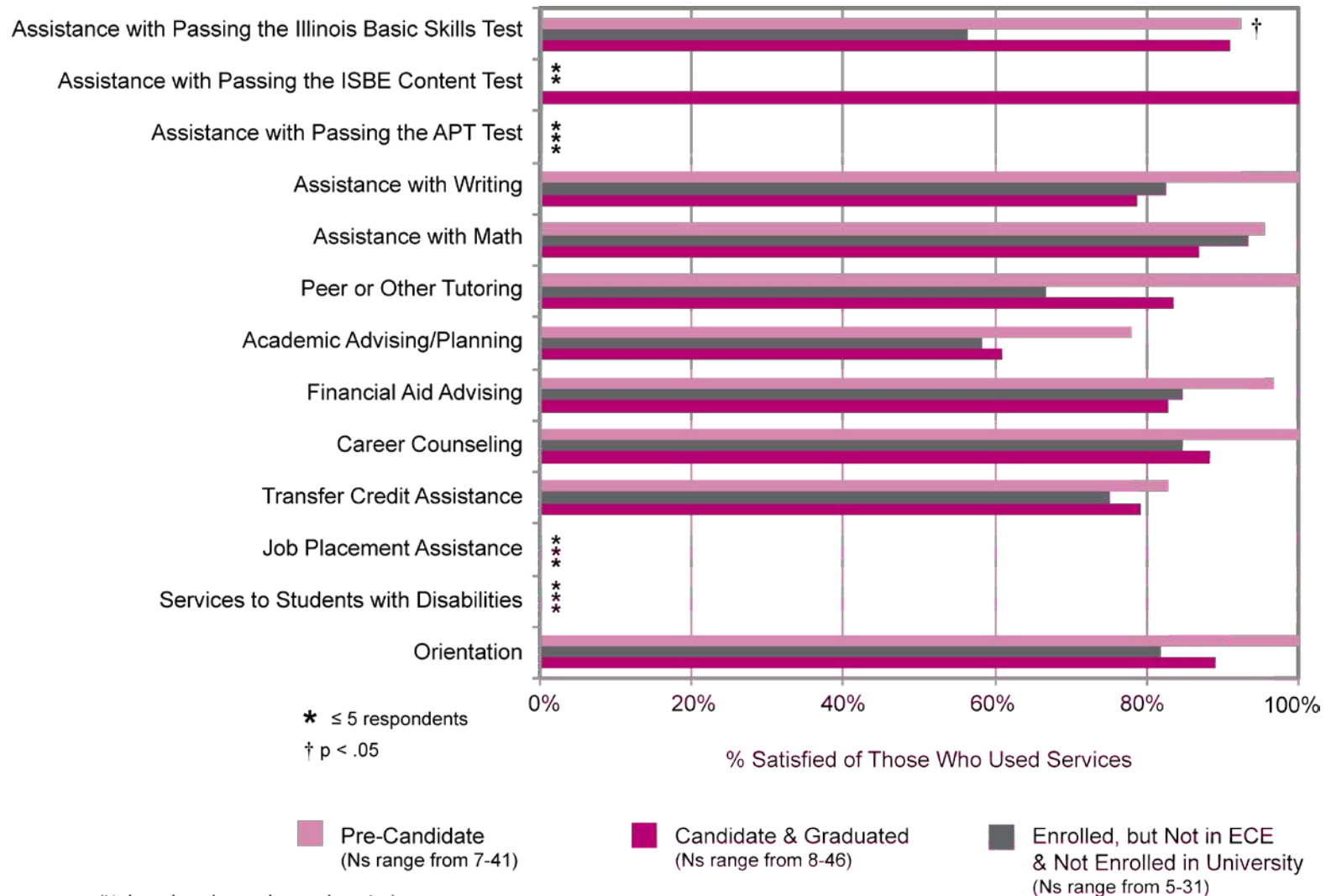
Undergraduate Students' Awareness of Services



Undergraduate Students' Use of Services



Undergraduate Students' Satisfaction with Services



(Ns based on those who used service)

4-Year College Readiness

Self-Reported ACT	Self-Reported High School GPA				
	≤ 2.4	2.5 - 2.9	3.0 - 3.4	3.5 - 4.0	Missing
ACT < 20					
20-22					
23-25					
26+					
Missing					<i>Excluded</i>

Not/Least Ready	4%	n=137
Marginally Ready	13%	
Somewhat Ready	28%	
More Ready	38%	
Most Ready	17%	

Methodology adapted from Berkner & Chavez, *Access to postsecondary education for 1992 high school graduates*, NCES 98-105, Washington, DC NCES (1997).



College Readiness Index for Undergraduate Students

	2007 Status – Undergraduate Level			
	Pre-Candidates (n=47)	Enrolled, but not in ECE & Not Enrolled (n=42)	Candidate & Graduated (n=48)	TOTAL (n=137)
Not/Least Ready	*	*	*	4%
Minimally Ready	*	24%	*	13%
Somewhat Ready	34%	26%	23%	28%
More Ready	43%	31%	40%	38%
Most Ready	13%	*	25%	17%
Total	100%	100%	100%	100%

Differences are not statistically significant.

* ≤ 5 respondents



Summary of Survey Results

- **There are large disparities in students' perceptions and institutional records for the 2007 enrollment status.**
- **Pre-candidates have many risk factors associated with slow progression to degree completion and non-persistence.**
 - minority status, part-time status, lower income, "life demands"
- **Fewer Pre-candidates and students not enrolled in ECE or the institution are "satisfied" and "very satisfied" with their overall college experience and their ECE program experience.**
- **Some Pre-candidates and students not enrolled in ECE or the institution appear to be "exploring" the ECE major.**
 - One in five report attending classes to consider ECE major (as opposed to obtain a bachelor's degree).
 - One in four students not enrolled in ECE or the institution in Fall 2007 are undecided about plans to seek ECE teaching certificate.



Summary of Survey Results (cont'd)

- **Incomplete prerequisites (including Basic Skills test) and financial issues are among the top three reasons students are not enrolled.**
 - Students who “leaked” also report no longer being interested in ECE.
 - Dissatisfaction with academic advisor and inadequate communication are also among top three reasons.
- **Overall, students who “leaked” from the ECE program are less aware of available support programs (e.g., career counseling, orientation, math tutoring).**
 - Of those aware of programs, fewer than 50% of students in all three groups took advantage of available support programs – except for academic advising, financial aid advising, orientation, and transfer assistance.
 - The majority of those who used services are satisfied, although students who “leaked” from the ECE program were less satisfied with assistance for the Basic Skills test.
- **We see a trend that student less prepared for college are more likely to progress slowly or not persist in completing the ECE degree.**



Recommendations

- **Policies directed at reducing the financial burden and decreasing work/class time conflict would likely increase the number of full-time students, thus accelerating the production of ECE graduates eligible for certification.**
 - Scholarships, loan forgiveness for community service, subsidies for books and internet access
 - Free childcare services, flexible schedules, online or condensed courses
- **Increasing utilization of support programs may require institutions to modify their offerings to meet students' needs.**
 - Advising and tutoring services in the evenings, online, or at more convenient locations; bi-lingual tutoring particularly for the Basic Skills test
 - Investigate factors impeding students from utilizing support programs

Recommendations (cont'd)

- **Early identification of students “exploring” the ECE degree to improve efforts to meet their academic needs and provide career guidance may increase persistence in the ECE program.**
 - Coordinated efforts between College of Education and central advising staff prior to official enrollment may help solidify students decision to major in ECE and facilitate their course taking and progression through the program
- **Detailed analysis of enrollment data by candidacy status and increased communication with students about their progress would help improve consistency between students’ perceptions and institutional data regarding enrollment status.**
- **Extend the current study by examining institutions across the state, as well as other teacher preparation programs.**
 - Examine more points in time over a longer timeframe to differentiate “stop outs” and “drop outs”
 - Examine program designs (e.g., course taking patterns) for additional insight into students’ enrollment patterns



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