



Illinois Education Research Council

Pipelines and pools: Meeting the demand for early childhood teachers in Illinois

**Jennifer B. Presley
Bradford R. White
Brenda K. Klostermann**

AEFA – March 23, 2007

Funding for this study was provided by the National Institute for Early Education Research (NIEER) at Rutgers University and The Pew Charitable Trusts.



The Purpose of the Study

- Is the *supply* of qualified early childhood teachers adequate to meet growing *demand*?
- *Demand* was eventually defined by Illinois' Preschool-For-All initiative that was developing simultaneously.
 - **Phase 1**: 32,000 additional children in Years 1 through 3
 - **Phase 2**: extending service to “all” in Years 4 & 5
 - 50% of 3-year olds and 60% of 4-year olds = 23,000 additional children.
 - Program requires state certified early childhood teachers.
 - Early childhood centers (as well as schools) are eligible to apply for funding.

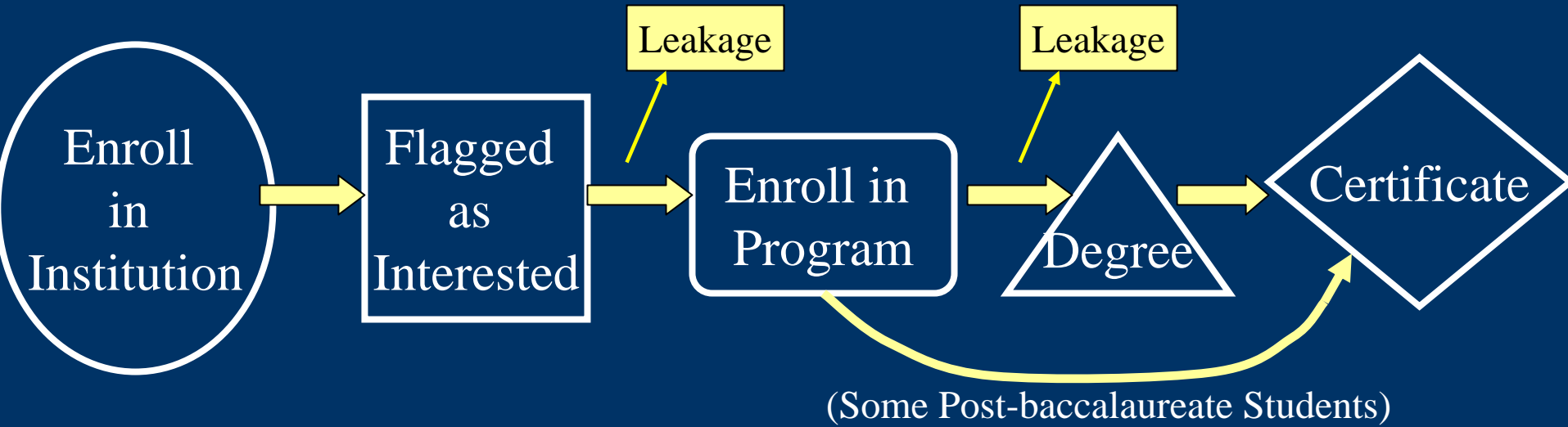


Measuring Supply

- **Pipeline** of newly certified teachers
 - Looked at IPEDS enrollment and degrees, and state certification data.
- **Reserve Pool** of previous certificants
 - Illinois has pre-existing early childhood certification, so we have a cadre of qualified teachers.
 - Used two state databases to identify potential reserve pool.
 - Surveyed this potential Reserve Pool.



The Higher Education Pipeline



- There is not only “leakage” between enrollment and completion, but also between “interest” and enrollment. We used certification data in modeling.
- We are undertaking a follow-up study in Chicago to further examine the leaks in the pipeline.



Reserve Pool Survey

- What are the **characteristics** of the potential reserve pool?
- **Under what conditions** might they work in an Illinois early childhood center, where enrollment growth is likely to occur?
 - Since centers are perceived to be harder to staff than public schools, we wanted to know what it would take to get certified teachers into those settings. It is probable that the overall findings can be generalized to public schools.



Identifying the Reserve Pool

- We used two state databases (certification and public school employment records) to identify those who held an Illinois Early Childhood Teaching Certificate between 1989 – 2003 *and* were not working in Illinois public schools in the 2002–2003 academic year.
 - The potential reserve pool = 5,402.
- We surveyed a random sample of 4,000 (74%) in Spring 2005; 46% response rate – was representative of the population.
- Using survey results to identify the actual reserve pool, we excluded those who
 - were already working in an Illinois early childhood center (14%).
 - were retired or disabled (19%).
 - were NOT willing to consider working in an Illinois early childhood center under any conditions (13%).

- **There is a Reserve Pool**
 - **Weighted N = 3,402 (in 2002-2003)**



Survey Results

Conditions	% Placing Condition in Top Three
Higher salaries	72%
Availability of a job operating on school-year schedule	23%
Better health care benefits	22%
Flexibility in scheduling my work hours	21%
Completing my own family obligations	20%
Better pension and retirement benefits	19%
Smaller class sizes	18%
Better resources and materials for classroom use	14%
Availability of a part-time job	11%
All other conditions	<10%

- **Higher salaries trump all other conditions when the Reserve Pool chooses their top three influences.**



Salary Requirements

Annual Salary Requirement	Percent
\$20,000 - \$29,999	7%
\$30,000 - \$39,999	38%
\$40,000 - \$49,999	29%
\$50,000 - \$59,999	14%
\$60,000 - \$69,999	7%
\$70,000 or more	4%
<i>Total</i>	100%

- Almost half (45%) of the Reserve Pool would require less than \$40,000. Another 29% would require \$40-\$49,999.



Key Findings about the Reserve Pool

- There is a ready and potentially willing Reserve Pool of qualified teachers for Illinois early childhood centers.
- It is salary not setting that makes it hard to recruit teachers to early childhood centers.



Modeling Supply & Demand

- Models mirror implementation schedule
- Assumptions:
 - 20 students per teacher for half day
 - 37% of growth in Chicago
 - Regional labor markets
- For modeling purposes, we tapped the Reserve Pool first, then the Pipeline – in reality these can be simultaneous
- Our estimates are conservative



Modeling Phase 1

Region	Additional Children Served Over 3 Years	Additional Type 04 Teachers Needed Over 3 Years	# Teachers if 25% of Regional Reserve Pool is Recruited Over 3 Years	Annual Deficit or Surplus with 25% of Regional Reserve Pool	Expected Number of New Certificants per Year	Annual Proportion of New Certificants Needed
City of Chicago	11,840	296	93	-68	250	27%
Cook County (minus City)	5,227	131	156	8	0	—
Northeast (minus Cook Co.)	7,120	178	190	4	54	—
Northwest	2,987	75	107	11	74	—
Central	2,560	64	55	-3	135	2%
South	2,267	57	89	11	81	—
Total, Illinois	32,000	800	690	-37	593	6%
Region Unknown					92	<i>None used in model</i>
Out-of-State			160		90	
Total, all Locales	32,000		850		775	



Modeling Phase 2

Region	Additional Children Served Over 2 Years	Additional Type 04 Teachers Needed Over 2 Years	# Teachers if 25% of Regional Reserve Pool is Recruited Over 2 Years (minus Phase 1)	Annual Deficit or Surplus with 25% of Regional Reserve Pool	Expected Number of New Certificants per Year	Annual Proportion of New Certificants Needed
City of Chicago	8,510	212	70	-72	250	29%
Cook County (minus City)	3,757	94	117	12	0	—
Northeast (minus Cook Co.)	5,118	128	143	8	54	—
Northwest	2,147	54	80	14	74	—
Central	1,840	46	41	-3	135	2%
South	1,629	41	67	13	81	—
Total, Illinois	23,000	575	518	-29	593	5%
Region Unknown					92	<i>None used in Model</i>
Out-of-State			160		90	
Total, all Locales	23,000		678		775	



Conclusions from Supply & Demand Study

- Through a combination of the **reserve pool** and the new certificant **pipeline**, **Illinois will be able to meet the demand for additional early childhood teachers** if:
 - 1) *Preschool for All* adds about **10,000** 3- and 4- year olds per year **and**;
 - 2) Early childhood centers can offer professional **salaries** to certified teachers.
- **Chicago** will be more reliant on the pipeline than other regions.
 - More work is needed to determine why more students aren't progressing from "interest" to program enrollee to graduate.



Preschool-For-All Implementation

- Prior to the new Preschool-For-All initiative, Illinois already funded slots for 75,000 children with an investment of \$273M.
- In the 2006 legislative session, the expansion plan was approved, subject to available appropriations.
- The IERC study was instrumental in demonstrating to the state legislature that there would be certified teachers available if the initiative was funded.
- Year 1 of Phase 1 expansion for 10,000 more slots was fully funded for FY 2007 (+\$45M).
- Year 2 funding (\$60M) for 12,000 more slots is in the Governor's FY 2008 budget request.
- Early childhood centers are eligible to receive grants, but must pay certified teachers prevailing public school salaries. Funds are provided in the state grants to accomplish this.