
Constancy and Change in Head Start Classroom Quality and School Readiness Gains

*Presentation at the National Head Start Research
Conference*

June 26, 2002

*Nicholas Zill and Gary Resnick
Westat*



Introduction

- Current debates about improving Head Start can benefit from hard data on average classroom quality and typical gains made by children in the program.
- The 1997 cohort of the Head Start Family and Child Experiences Survey shed some light on this issue by showing that average classroom quality was “good” on widely-used scales like the ECERS and Assessment Profile.
- FACES 1997 showed that children made significant gains against national norms in vocabulary and early writing skills.
- But FACES 1997 found a lack of progress in letter recognition and early math skills.
- This presentation compares the 1997 cohort with a new national sample of 43 programs and a new cohort of 2,400 children sampled in 2000.



Research Questions

1. Did average levels of classroom quality of Head Start classes change significantly between FACES 1997 and FACES 2000 (i.e., from 1997-98 to 2000-2001)?

We examined changes (or lack thereof) in the following quality measures:

- a. Overall ECERS score;
- b. ECERS component scales;
- c. Assessment Profile Scheduling scale;
- d. Assessment Profile Learning Environment scale.



Research Questions

2. Did average levels of early literacy skills attained by spring of Head Start year and fall-spring gains change significantly between FACES 1997 and FACES 2000 (i.e., from 1997-98 to 2000-2001)?

We examined changes (or lack thereof) in the following skill areas:

- a. Vocabulary;
- b. Letter-Word Identification;
- c. Early writing (Dictation);
- d. Early math (Applied Problems).

Comparisons were for children assessed in English both times only.



Research Questions

3. In FACES 2000, Spanish-speaking language-minority children were given vocabulary and letter-word identification assessments in both Spanish and English. How did the literacy levels and gains of these children compare with those of language-majority children? How did they vary across the two languages?

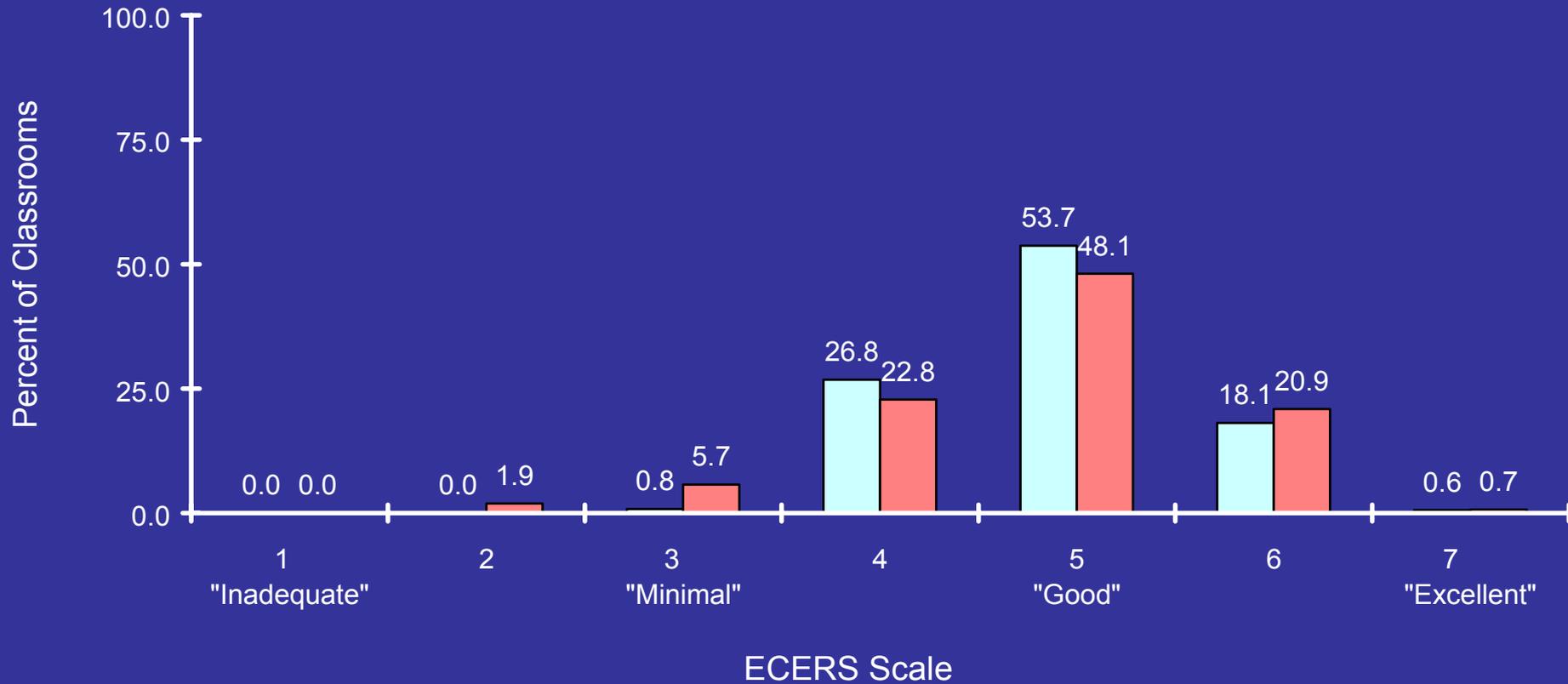


Classroom Quality Measures in FACES 2000 versus FACES 1997

- Head Start classrooms showed comparable ECERS scores in FACES 2000 and FACES 1997, despite change from ECERS to ECERS-R.
- Head Start classrooms showed comparable Assessment Profile Scheduling and Learning Environment scores in FACES 2000 and FACES 1997.



Distribution of classrooms on ECERS and ECERS-R, Fall 1997 & 2000

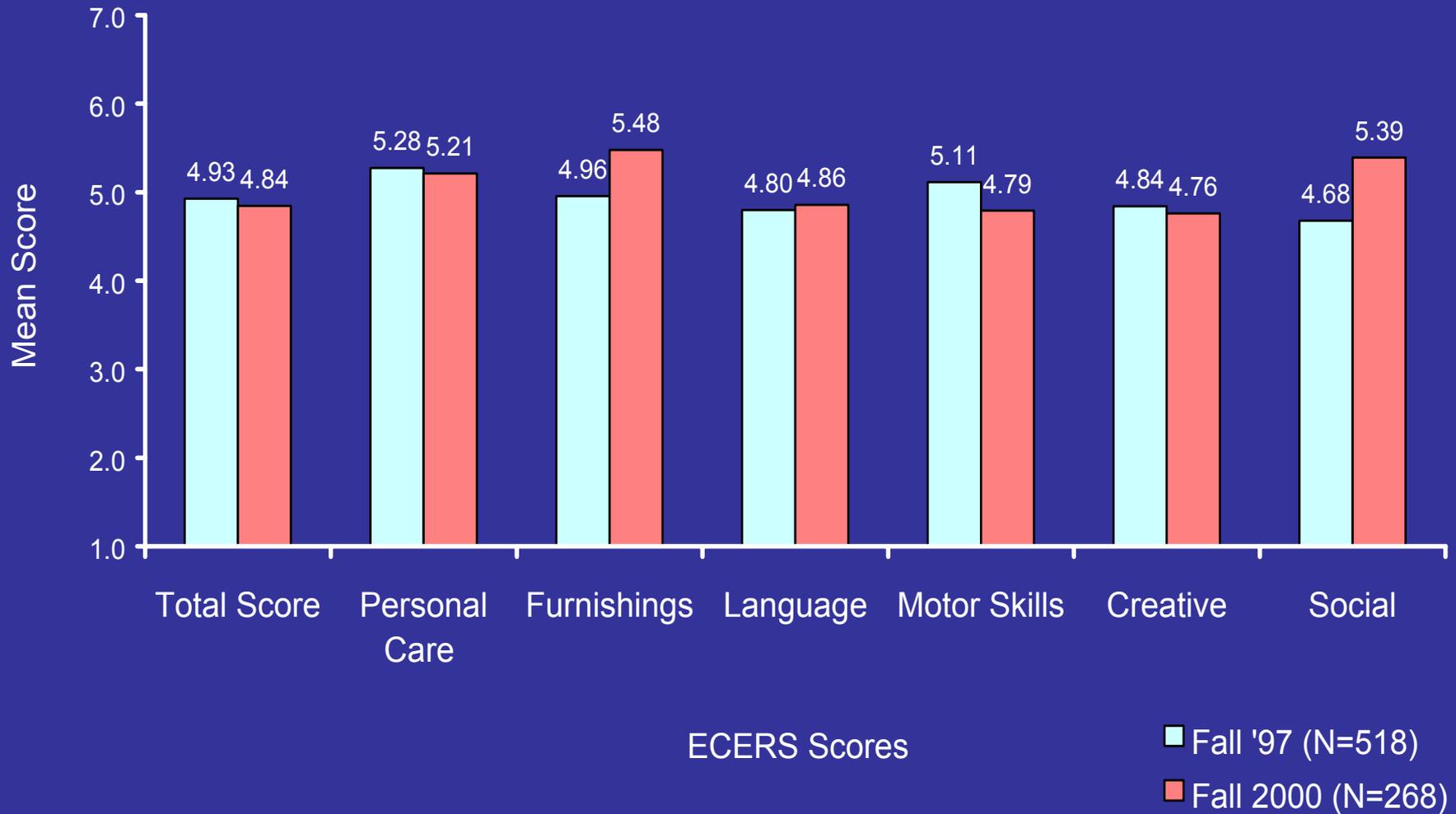


ECERS Scale Categories were coded as follows:
 0-1.49='1', 1.5-2.49='2', 2.50-3.49='3', 3.5-4.49='4'
 4.5-5.49='5', 5.5-6.49='6', 6.5-7='7'

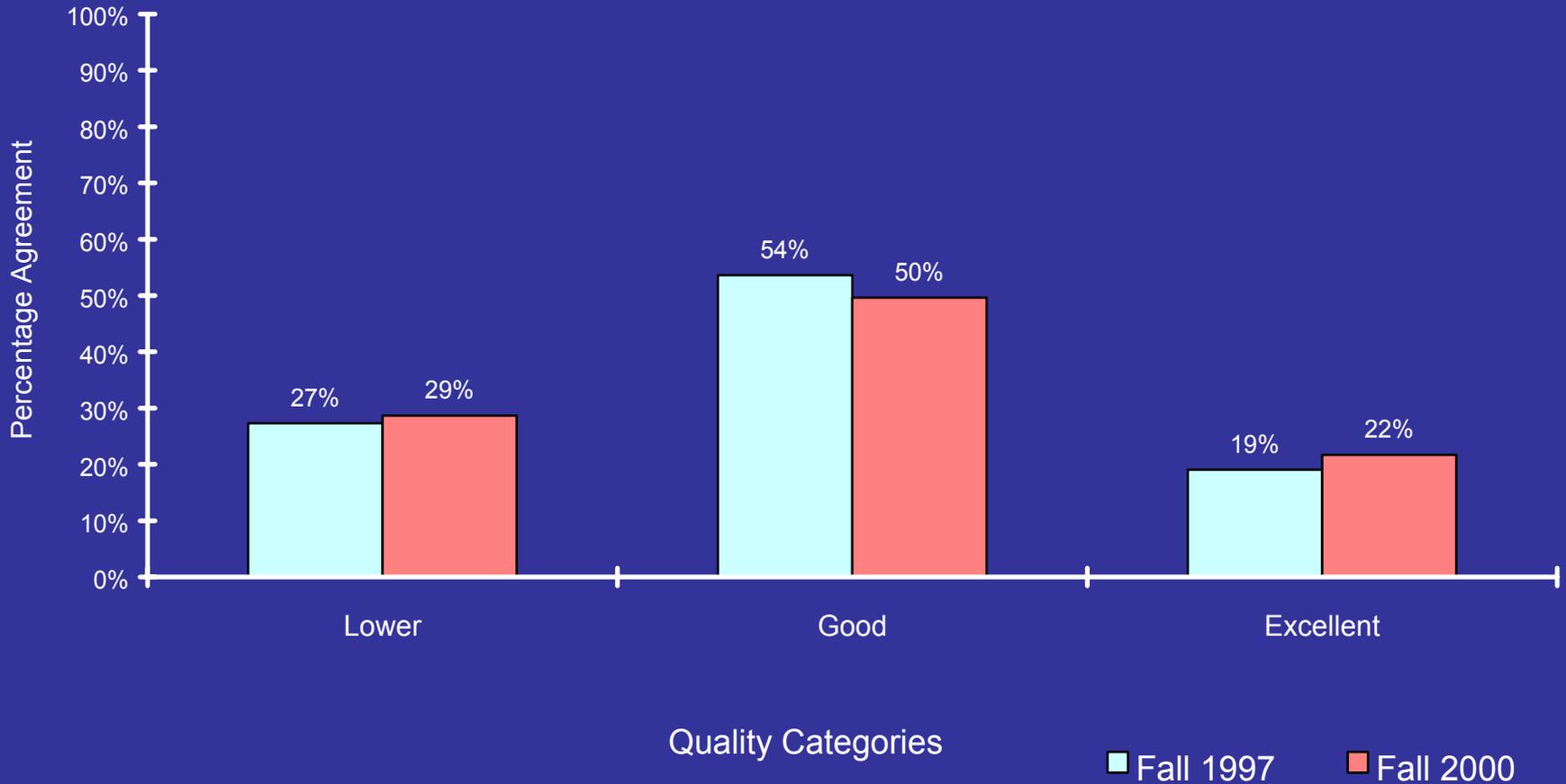
■ Fall 1997 (N=518)
 ■ Fall 2000 (N=258)



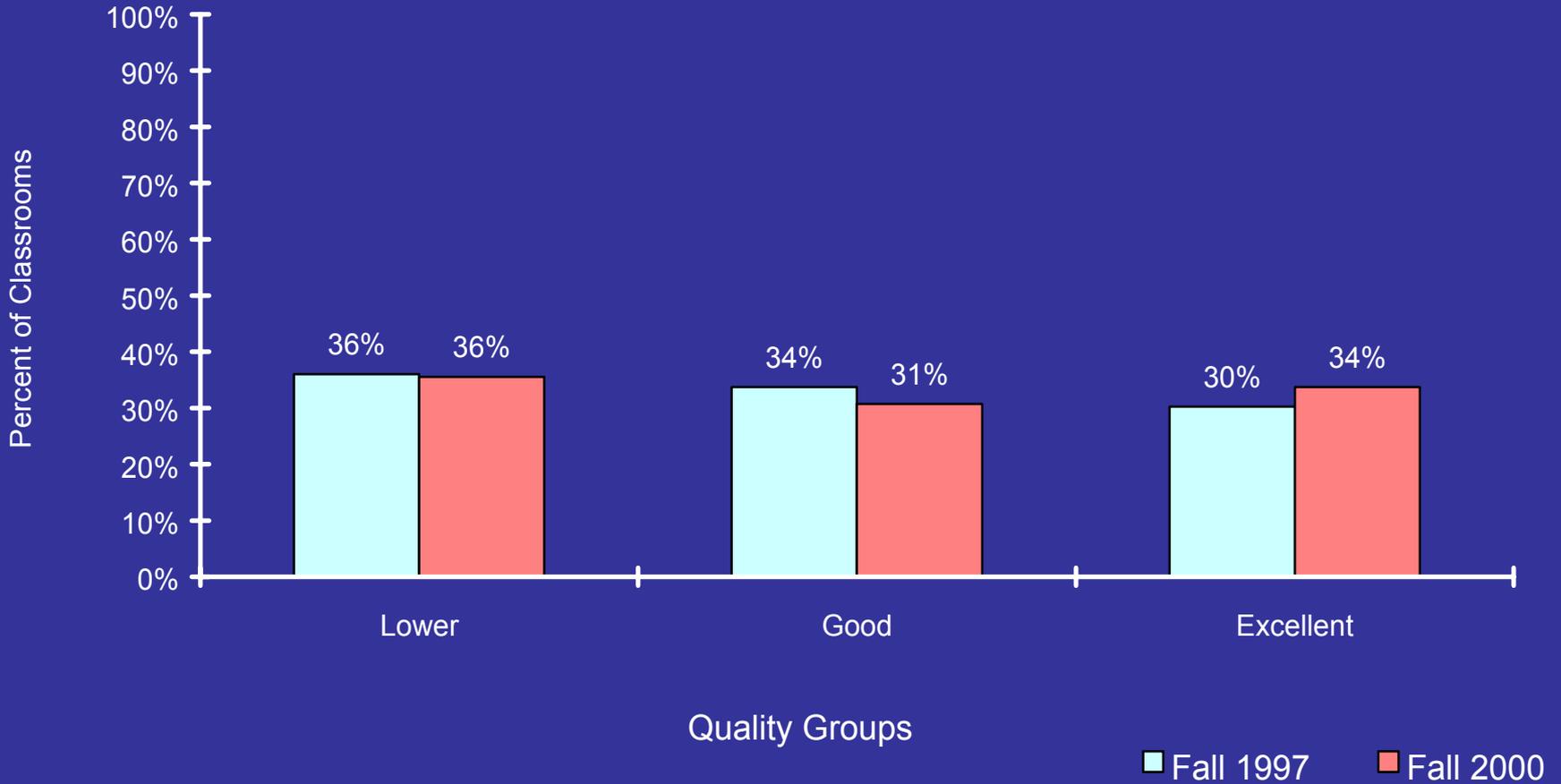
ECERS Total Score and Subscales, Fall 1997 and Fall 2000



Classroom Quality Grouped Lower (<4), Good (4-5) or Excellent (6+),
ECERS and ECERS-R Total Score, FACES Fall 1997 & 2000



Quality Groupings Lower (<4), Good (4-5), Excellent (6+),
ECERS Language Scale, FACES Fall 1997 & 2000



Assessment Profile Subscales, Fall 1997 and Fall 2000

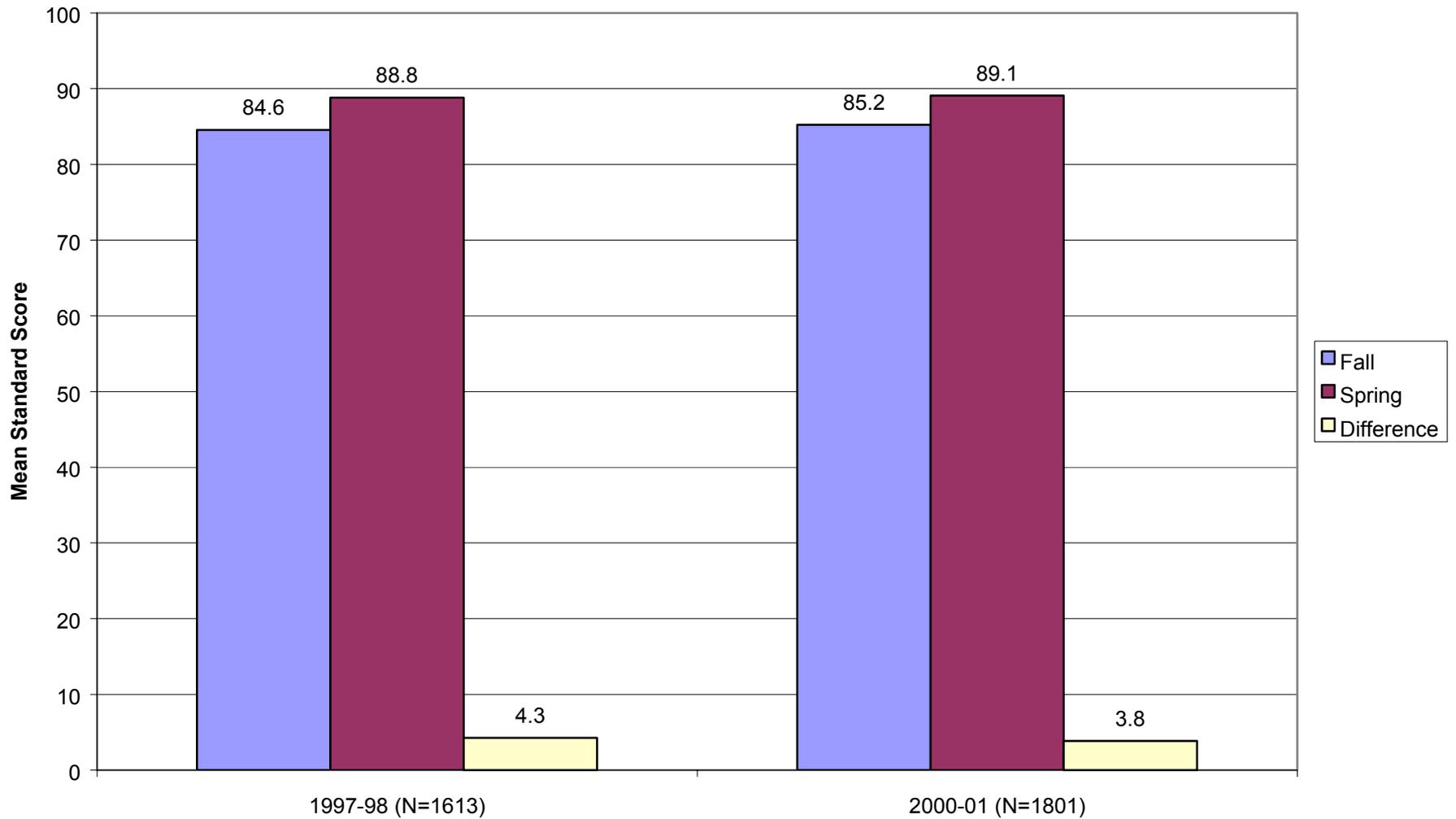


Fall-Spring Gains in FACES 2000 versus FACES 1997: Vocabulary (children aged 3 and above)

- Children showed comparable standard score gains in vocabulary in FACES 2000 and FACES 1997.
- In FACES 2000, children began and ended up with standard scores in vocabulary similar to those in FACES 1997.



**Figure 1. Vocabulary Standard Scores of Children in Fall and Spring of Head Start Year:
FACES 1997 versus FACES 2000**



Fall-Spring Gains in FACES 2000 versus FACES 1997: Letter Recognition (children aged 4 and above)

- In FACES 2000, children showed greater gains in letter recognition. Their scores meant that children learned the equivalent of 5 additional letters in Head Start and knew an average of 8.9 letters at the end of the program year.
- In FACES 1997, children learned the equivalent of 4 additional letters and knew an average of 7.2 letters at the end of the year.

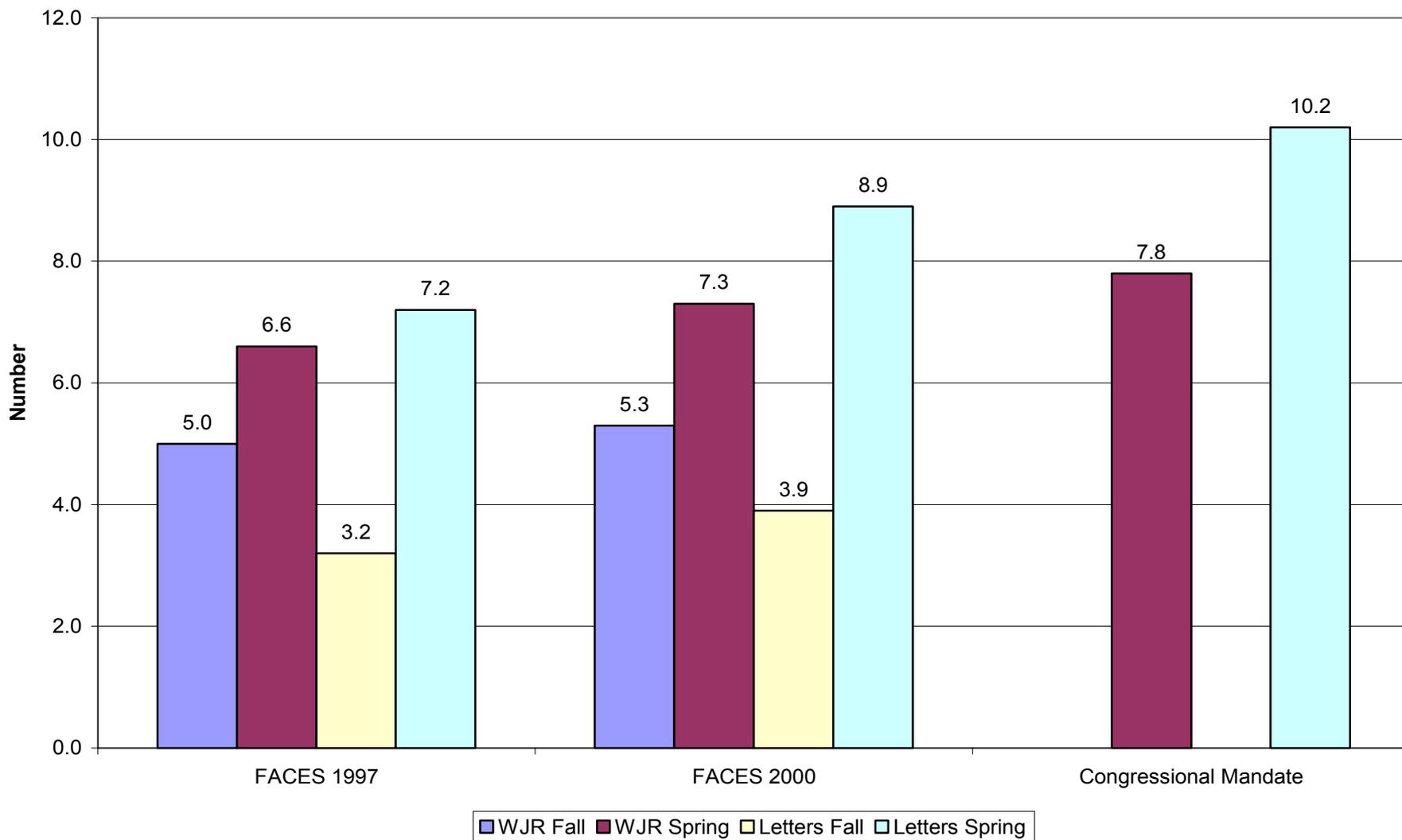


Fall-Spring Gains in FACES 2000 versus FACES 1997: Letter Recognition (continued)

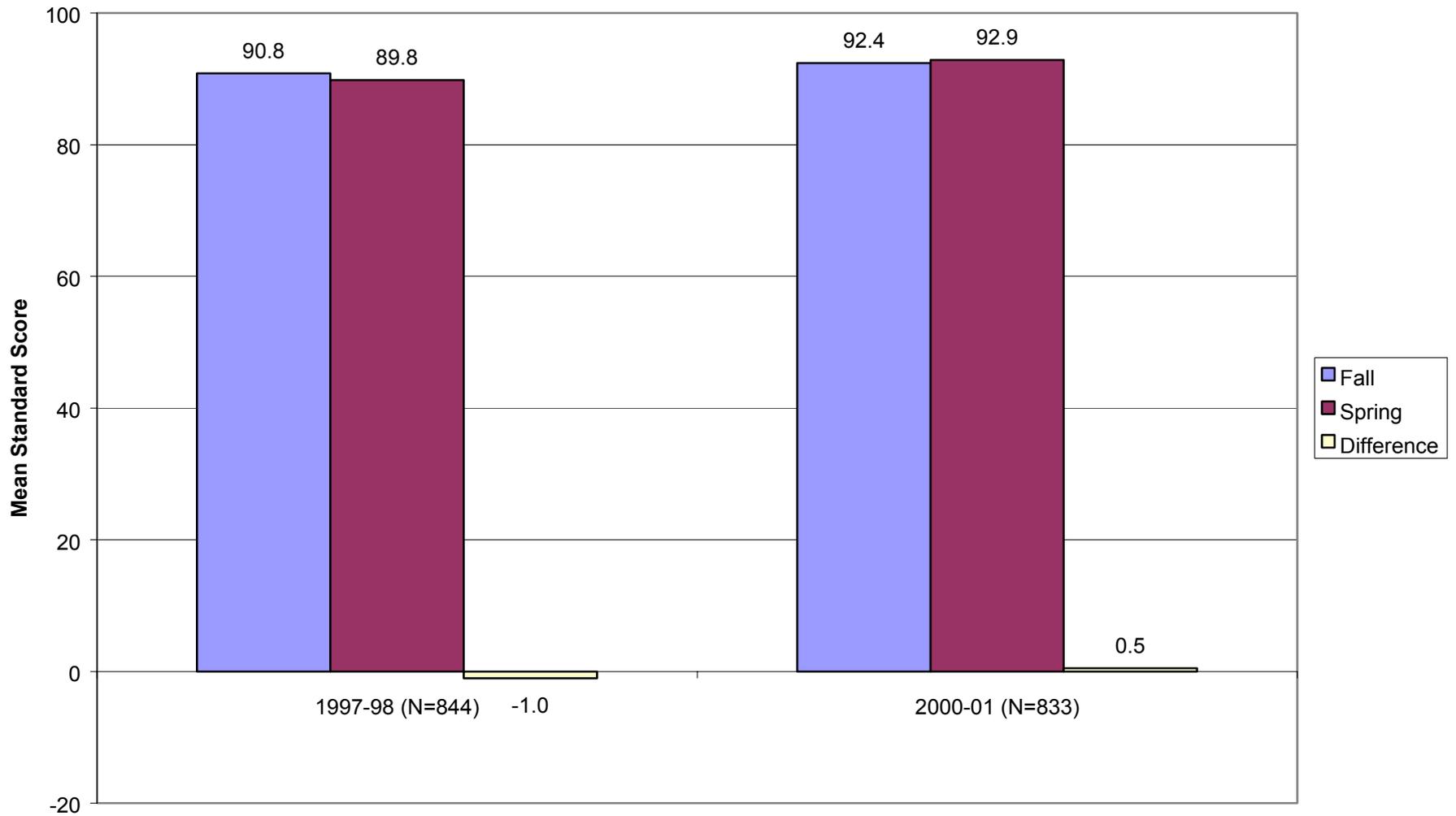
- In FACES 2000, greater raw score gains in letter identification meant children held their own against national norms (standard score of 92.4 in fall, 92.9 in spring).
- In FACES 1997, there was a small but significant decline in letter identification standard scores (90.8 in fall, 89.8 in spring).



FACES LWI Mean Scores and Number of Letter Equivalents



**Figure 2. Letter Identification Standard Scores of Children in Fall and Spring of Head Start
Year: FACES 1997 versus FACES 2000**

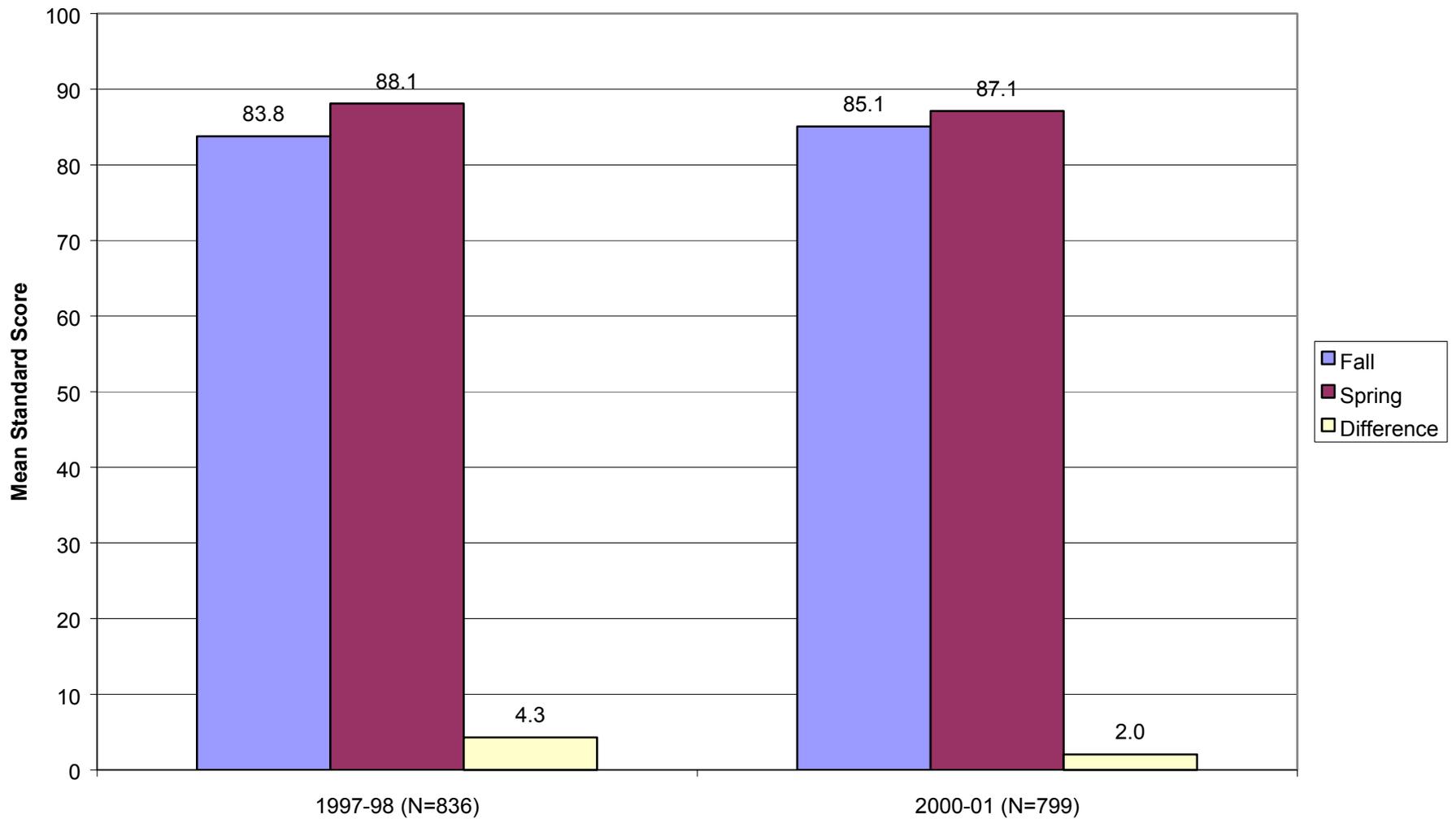


Fall-Spring Gains in FACES 2000 versus FACES 1997: Early Writing (children aged 4 and above)

- Smaller raw score gains in early writing skills meant children had smaller standard score gain in FACES 2000 -- (85.1 in fall, 87.1 in spring).
- In FACES 1997, there was a significantly larger gain in early writing (Dictation) standard scores (83.8 in fall, 88.1 in spring).



**Figure 3. Early Writing Standard Scores of Children in Fall and Spring of Head Start Year:
FACES 1997 versus FACES 2000**



Fall-Spring Gains in FACES 2000 versus FACES 1997: Early Math (children aged 4 and above)

- Children showed comparable standard score gains in early math in FACES 2000 and FACES 1997.
- In FACES 2000, children began and ended with higher standard scores in math than in FACES 1997.



**Figure 4. Early Math Standard Scores of Children in Fall and Spring of Head Start Year:
FACES 1997 versus FACES 2000**

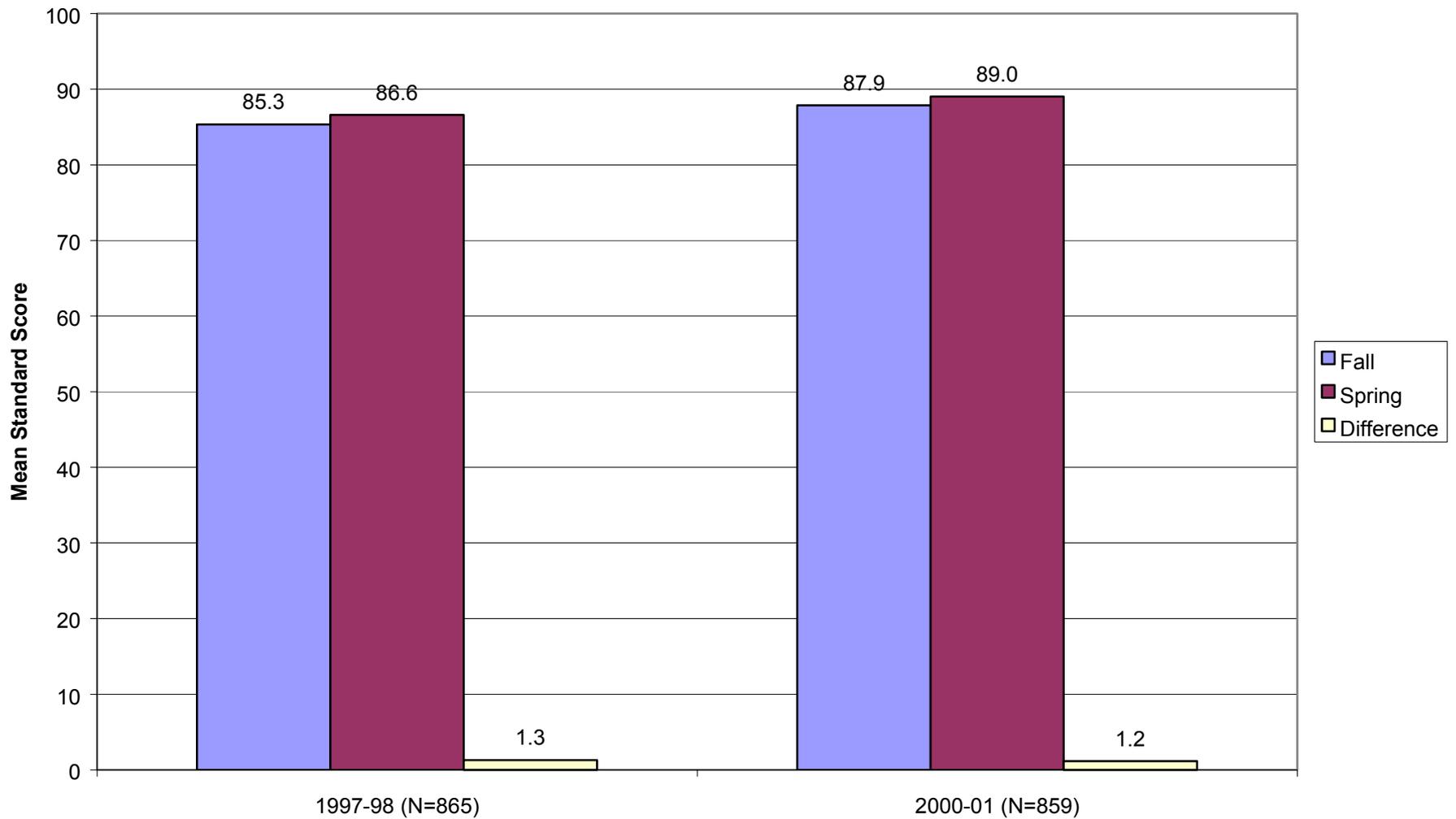
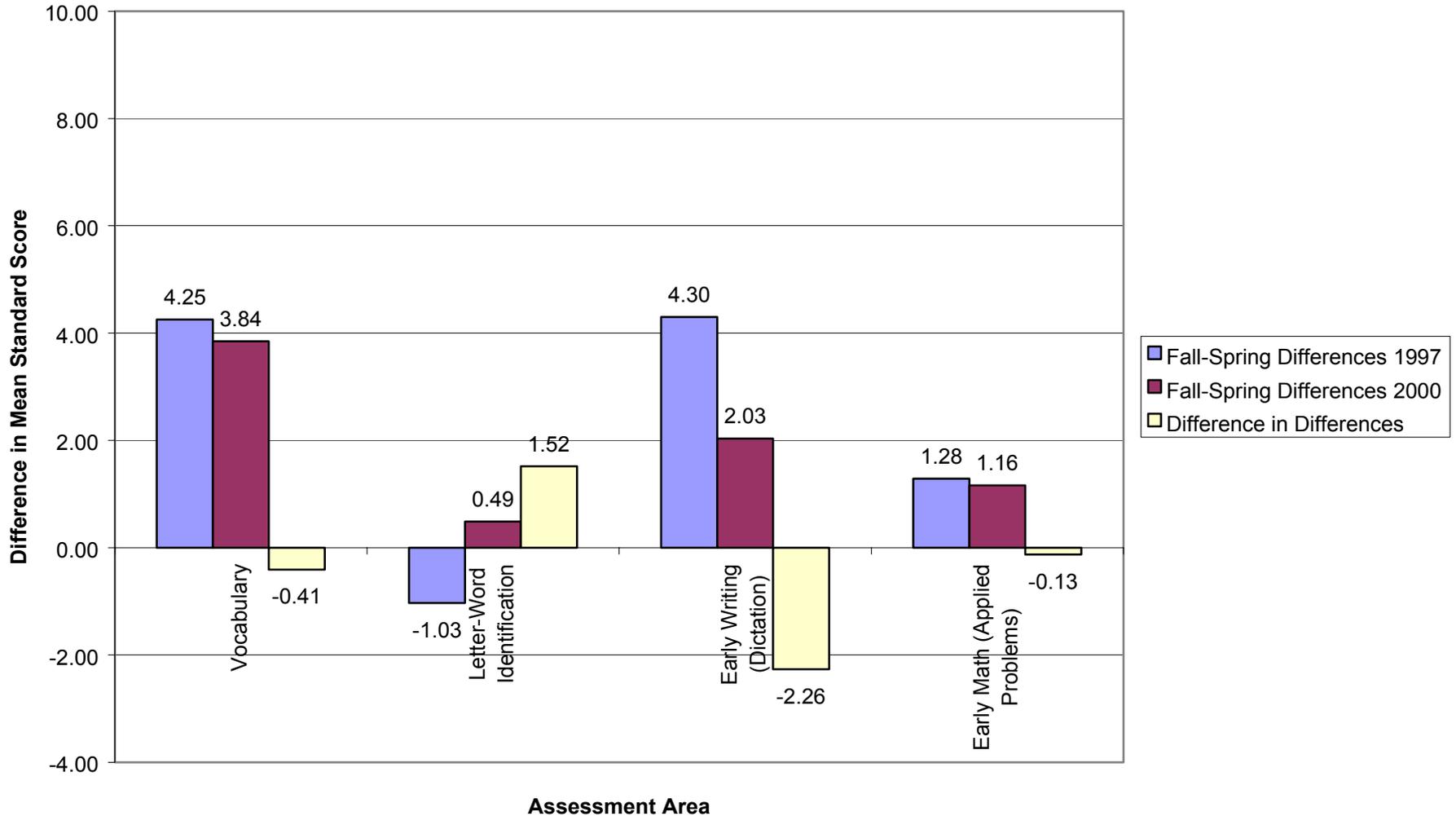


Figure 5. Standard Score Gains from Fall to Spring of Head Start Year: FACES 1997 vs. FACES 2000



Fall-Spring Gains in FACES 2000 versus FACES 1997

- Overall comparability of raw scores and standard scores from FACES 1997 to FACES 2000 indicates that assessment procedures are reliable and reasonably well-standardized.



Research Question 3

- How did literacy levels and gains of Spanish-speaking language-minority children in Head Start compare with those of language-majority children?
- How did literacy levels and gains of these children vary across the two languages?

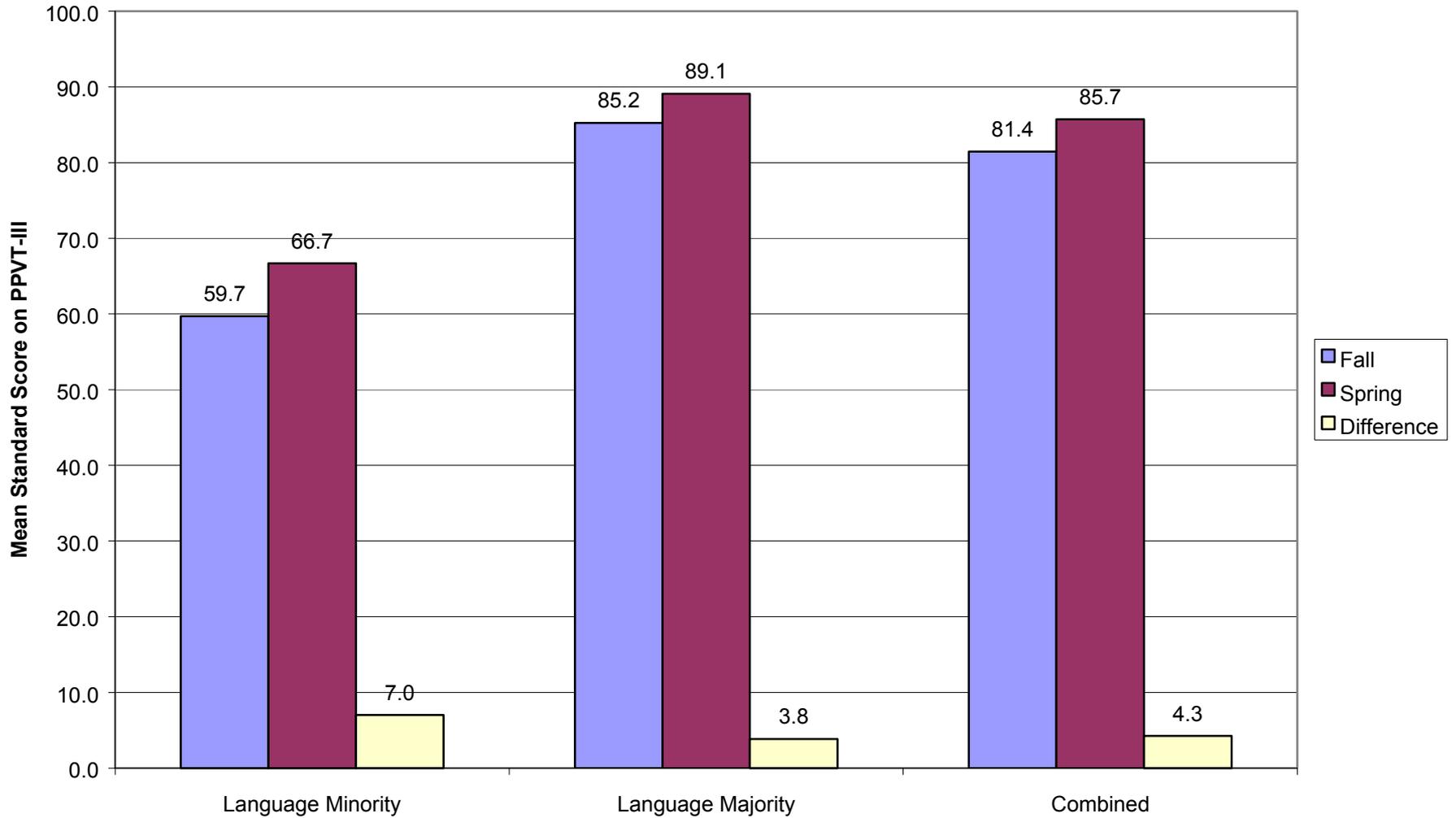


Skills of Language-Minority Children: Vocabulary

- Spanish-speaking language-minority children in Head Start entered with English-language vocabulary skills that were considerably behind those of language majority children. They made greater gains over the course of the Head Start year, but remained behind language-majority children.
 - Number of language-minority children aged 3 and above tested on PPVT-III in fall and spring = 309



Figure 6. English-Language Vocabulary Skills of Head Start Children: Spanish-Speaking Language Minority, Language Majority, and Combined Population

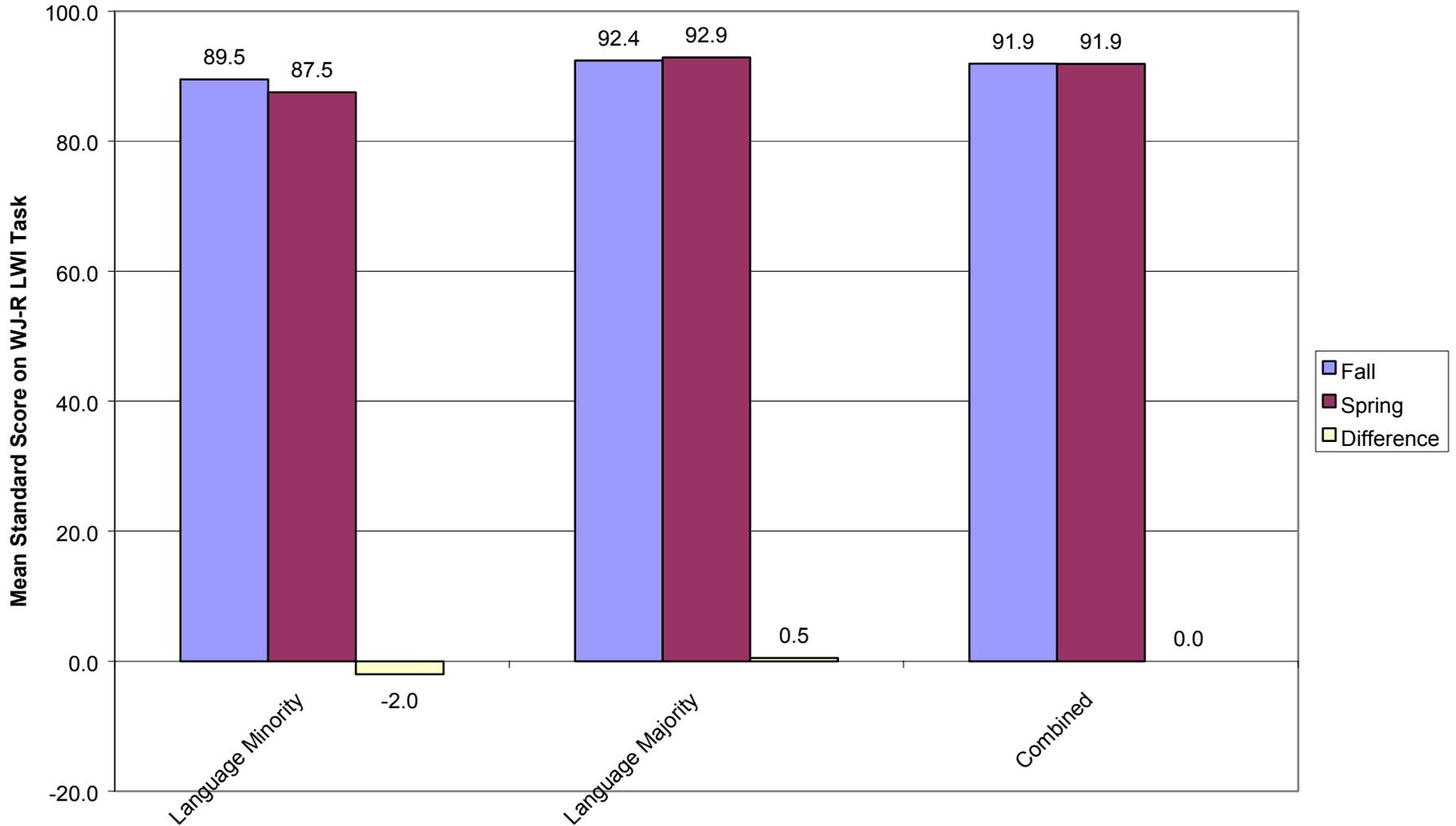


Skills of Language-Minority Children: Letter Recognition

- Spanish-speaking language-minority children entered with English-language letter recognition skills that were slightly behind those of language majority children. However, they did not make gains over the course of the Head Start year, compared to national norms.
 - Number of language minority children aged 4 and above tested on WJ-R Letter-Word Identification task = 176



Figure 7. Letter-Identification in English By Head Start Children: Spanish-Speaking Language Minority, Language Majority, and Combined Population

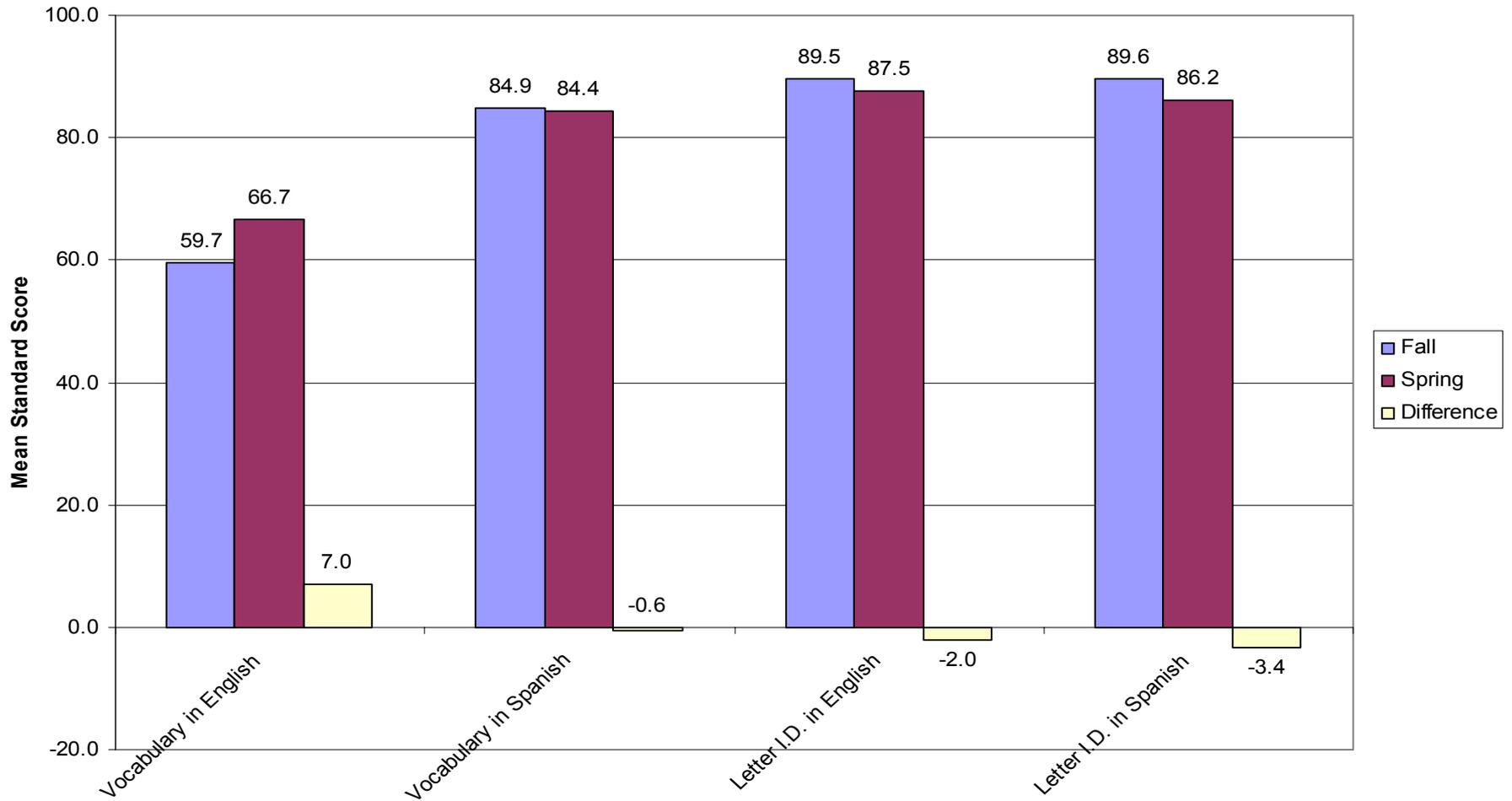


Skills of Language-Minority Children: Spanish versus English

- Language-minority children made vocabulary gains in Head Start, but left with English vocabulary skills that trailed their Spanish vocabulary skills by a considerable margin. Their letter-recognition skills were roughly comparable in English and Spanish, but showed no gains versus norms over the course of the year.
 - Number of language-minority children aged 3 and above tested on TVIP in fall and spring = 300
 - Number aged 4 and above tested on WM LWI = 174



Figure 8. Vocabulary and Letter Identification Skills in English and in Spanish of Head Start Children From Spanish-Speaking Language Minority Families



Conclusions

- Head Start classroom quality remained in the “Good” range in the ECERS-R and Assessment Profile scales in 2000, as they had been in 1997.
- Head Start children showed significant gains in vocabulary skills against national norms in 2000-2001, as they had in 1997-1998.



Conclusions (continued)

- Head Start children showed modestly larger gains in letter recognition skills in 2000-2001 than they had in 1997-1998.
- Children in 2000-2001 were close to meeting the Congressional mandate that children shall know 10 letters of the alphabet by the end of Head Start.



Conclusions (continued)

- Language minority children in Head Start children showed significant gains in English vocabulary skills without declines in their Spanish vocabulary skills.
- Language minority children did not show gains in letter recognition skills against national norms.

