



**Retention, Success, Persistence, and Enrollment Rates and
Student Demographics in Spanish Telecourses versus
Traditional Classroom Spanish**

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Summary

This report compares retention, success, and persistence rates between Spanish telecourses (Destinos) and traditional classroom Spanish. Beginning Spanish courses in general have significantly lower retention and success rates than advanced Spanish. Destinos rates are mostly below classroom rates although the gap narrows in more advanced courses. Overall Destinos persistence was initially higher than classroom courses but has shown a significant downward trend over time of 5.5% per term and is now below classroom persistence rates. Further, enrollment in all Spanish classes in this study has been declining even though Cabrillo College's enrollment has been increasing. Destinos students appear demographically distinct from classroom students being more likely to be older full time professionals or homemakers with degrees. It may be that Destinos is attracting students who would not otherwise be able to take Spanish but who also have more constraints inhibiting their scholastic performance. As Destinos students differ from classroom students, success, retention, and persistence comparisons may not be complete or appropriate measures of telecourse effectiveness.

Introduction

Distance learning is becoming increasingly used as a method of teaching students. Foreseen benefits include convenience for working students, outreach to underserved areas, and ability to accommodate our State's growing number of students (California Postsecondary Education Commission). As this is a new technique of instruction, we must compare distance learning's effectiveness to traditional methods of instruction. In this report, we examine retention, success, and persistence rates between distance learning students and traditional classroom students.

Methods

I studied all 5155 students who had taken Spanish 1, 1A, 1B, 2, 2A and/or 2B between Spring 1996 and Spring 1999 and received a grade of A, B, C, D, F, CR, NC, W, or I (CR = credit, NC = no credit, W = withdrawal, I = incomplete). Spanish classes included the distance learning Destinos telecourses for Spanish 1A, 1B, 2A, and 2B, traditional classroom Spanish 1 and 2, and traditional weekend classroom Spanish 1A and 1B.

Retention is the proportion of students who received a grade of A, B, C, D, F, CR, NC, or I or more simply, those who completed the course. Success is the proportion of students who received a grade of A, B, C, or CR. Persistence for Destinos is the proportion of students who completed Spanish 1B and Spanish 2A in consecutive terms. Persistence for classroom Spanish is the proportion of students who completed Spanish 1 or 1B and Spanish 2 in consecutive terms. Those who waited one or more terms were not counted for persistence nor were those who may have switched between a telecourse and classroom course.

Results

Retention and success rates are presented in Table 1 and shown in Figures 1 through 4. Likelihood analyses showed significant differences in retention rates for all terms except Fall 1996 and Spring 1999 (see Table 2). Classroom Spanish 2 generally had higher than expected retention while classroom Spanish 1 had generally lower than expected retention (see Table 3). Destinos courses vary with Spanish 1A showing a downward trend.

Significant differences in success rates occur in all terms (see Table 4). Classroom Spanish 2 consistently had higher than expected success rates while Destinos Spanish 1A had very consistent lower than expected success rates (see Table 5).

Persistence rates are initially higher for Destinos courses but then fall below classroom persistence rates (see Table 6) although the mean and median persistence for Destinos remains above classroom rates (see Table 7). Destinos persistence shows a significant linear decline of 5.5% per term on average while classroom persistence shows no significant linear increase or decrease over the same time period (see Table 8 and Figure 5).

Enrollment for all Spanish classes in this study have been generally declining by an average of 2.6 students per term even while Cabrillo College enrollment has been increasing by an average of 19.2 students per term (see Table 9 and Figure 6). Classroom Spanish 1 declines do not appear to be due to Destinos drawing away students nor does Destinos appear to be slowing the decline as enrollment rates are not significantly different between Spanish 1 with and without Destinos 1A included using a Mann-Whitney U-test ($Z = -0.622$, $p = 0.534$) (see Figure 7). Crosstabulations of demographics between Spanish 1 and Destinos Spanish 1A students (not presented) show that a higher proportion of Destinos students are female, white, over 40, native English speakers, expecting to be employed either full time or not at all, have an advanced degree, and have “update job skills” or “educational development” as a goal. There does not appear to be a relation between geography and course.

Discussion

Beginning Spanish classes of either type appear to have in general lower retention and success rates while more advanced Spanish classes, especially classroom Spanish, seem to have overall higher retention and success. This could be due to students having greater commitment as they begin progressing through levels of Spanish or perhaps that stronger students are more likely to be those who progress. Differences in retention between Destinos and classroom Spanish appear to follow similar patterns to persistence where Destinos Spanish 1A begins higher than Spanish 1 but later declines. Success for Destinos is lower than equivalent classroom Spanish in all cases except for Fall 1997 Destinos Spanish 1B and Spring 1999 Destinos 1A compared to weekend Spanish 1A.

The initial high persistence of Destinos has eroded to below traditional classroom persistence. Classroom Spanish appears to have established a stable persistence level while it seems we cannot yet tell where or whether Destinos courses will settle.

Enrollments for all Spanish classes are declining and Destinos classes do not appear to be adding or detracting but rather are following the decline. One goal of Destinos was to reach out to students who would not otherwise be able to take Spanish because of lifestyle constraints. Comparing Destinos 1A to classroom Spanish 1, we find that a higher proportion of Destinos students are female, white, over 40, native English speakers, expecting to be employed either full time or not at all, have an advanced degree, and have “update job skills” or “educational development” as a goal. There does not seem to be a difference in Destinos versus classroom Spanish enrollment by geographic region. It appears that Destinos may differentially attract older professional and homemaking students whose home and work demands inhibit physically attending classes. Because Destinos students appear to differ from classroom students, it may be that success, retention, and persistence rates may not be complete or appropriate measures of effectiveness. It may be that simply the attraction of new students is the desired outcome. Minimum goals for enrollment, retention, success, and persistence are probably appropriate but they should probably not be expected to be as high as classroom rates.

Table 1. Retention and Success Rates for Destinos and Classroom Spanish

Term		Retention		Success		Total
		#	%	#	%	
Spring 96	DSPAN1A	53	80.3	26	39.4	66
	DSPAN1B	17	89.5	10	52.6	19
	DSPAN2A	6	66.7	3	33.3	9
	DSPAN2B	7	77.8	5	55.6	9
	SPAN1	297	64.4	255	55.3	461
	SPAN1B	9	56.3	9	56.3	16
	SPAN2	187	77.9	177	73.8	240
	Term Total	576	70.2	485	59.1	820
Fall 96	DSPAN1A	50	78.1	19	29.7	64
	DSPAN1B	14	66.7	8	38.1	21
	DSPAN2A	29	82.9	14	40.0	35
	DSPAN2B	2	100.0		0.0	2
	SPAN1	359	74.2	279	57.6	484
	SPAN2	127	72.2	109	61.9	176
	Term Total	581	74.3	429	54.9	782
Spring 97	DSPAN1A	52	94.5	24	43.6	55
	DSPAN1B	13	72.2	7	38.9	18
	DSPAN2A	15	78.9	8	42.1	19
	DSPAN2B	13	100.0	8	61.5	13
	SPAN1	280	67.3	220	52.9	416
	SPAN1A	22	95.7	12	52.2	23
	SPAN1B	12	75.0	11	68.8	16
	SPAN2	128	73.6	120	69.0	174
	Term Total	535	72.9	410	55.9	734
Fall 97	DSPAN1A	17	39.5	16	37.2	43
	DSPAN1B	10	76.9	9	69.2	13
	DSPAN2A	9	47.4	9	47.4	19
	DSPAN2B	1	16.7	1	16.7	6
	SPAN1	303	60.8	250	50.2	498
	SPAN1A	22	91.7	13	54.2	24
	SPAN1B	14	63.6	7	31.8	22
	SPAN2	151	78.2	137	71.0	193
	Term Total	527	64.4	442	54.0	818
Spring 98	DSPAN1A	29	59.2	22	44.9	49
	DSPAN1B	14	66.7	8	38.1	21
	DSPAN2A	8	44.4	8	44.4	18
	DSPAN2B	9	100.0	8	88.9	9
	SPAN1	262	68.9	216	56.8	380
	SPAN1A	14	53.8	14	53.8	26
	SPAN1B	13	86.7	9	60.0	15
	SPAN2	136	80.0	127	74.7	170
	Term Total	485	70.5	412	59.9	688
Fall 98	DSPAN1A	28	53.8	15	28.8	52
	DSPAN1B	10	50.0	8	40.0	20
	DSPAN2A	10	66.7	9	60.0	15
	DSPAN2B	3	100.0	3	100.0	3
	SPAN1	310	74.9	240	58.0	414
	SPAN1A	26	65.0	23	57.5	40
	SPAN1B	21	87.5	16	66.7	24
	SPAN2	132	83.0	118	74.2	159
	Term Total	540	74.3	432	59.4	727
Spring 99	DSPAN1A	27	87.1	18	58.1	31
	DSPAN1B	13	68.4	8	42.1	19
	DSPAN2A	5	55.6	4	44.4	9
	DSPAN2B	1	50.0	1	50.0	2
	SPAN1	250	78.4	208	65.2	319
	SPAN1A	16	80.0	7	35.0	20
	SPAN1B	10	90.9	6	54.5	11
	SPAN2	143	81.7	142	81.1	175
	Term Total	465	79.4	394	67.2	586

DSPAN = Destinos Spanish Telecourses

SPAN = Traditional Classroom Spanish

Figure 1. Retention for Destinos and Classroom Spanish 1.

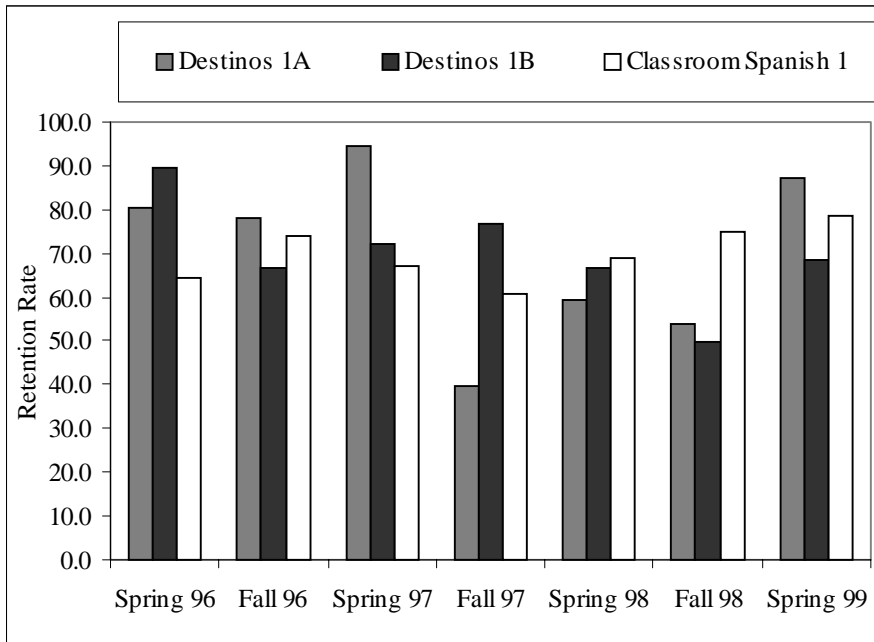


Figure 2. Retention for Destinos and Classroom Spanish 2.

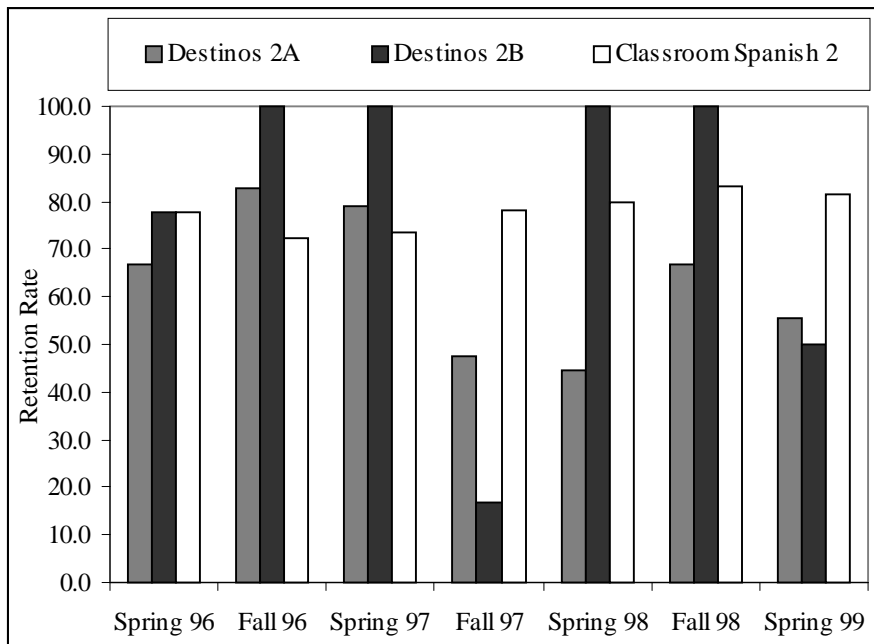


Figure 3. Success for Destinos and Classroom Spanish 1.

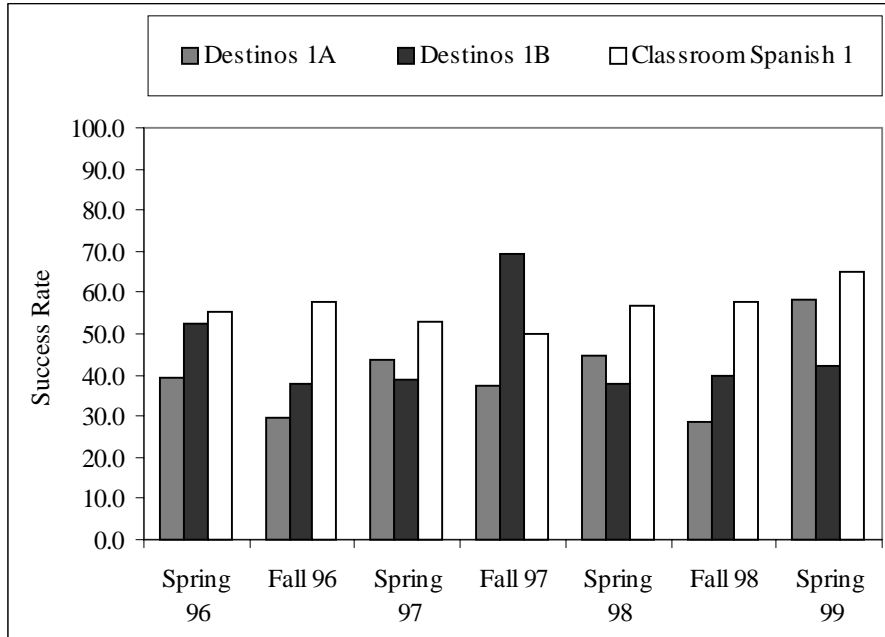


Figure 4. Success for Destinos and Classroom Spanish 2.

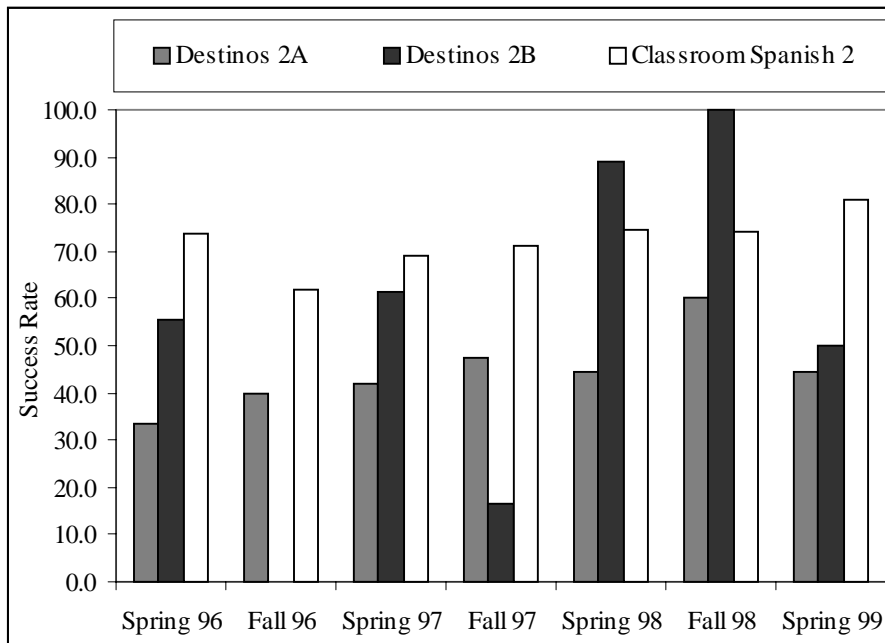


Table 2. Significance of differences in retention rates between courses.

Term	Likelihood Ratio	df	p
Spring 96	23.62	6	0.001
Fall 96	4.184	5	0.523
Spring 97	40.714	7	< 0.0005
Fall 97	49.881	7	< 0.0005
Spring 98	28.334	7	< 0.0005
Fall 98	28.903	7	< 0.0005
Spring 99	7.809	7	0.35

Table 3. Comparison of observed retention rates to those expected if all courses were equal.

Term	DSPAN1A	DSPAN1B	DSPAN2A	DSPAN2B	SPAN1	SPAN1A	SPAN1B	SPAN2
Spring 96	higher	higher			lower			higher
Fall 96								
Spring 97	higher			higher	lower	higher		
Fall 97	lower		lower	lower	lower	higher		higher
Spring 98			lower	higher		lower		higher
Fall 98	lower	lower						higher
Spring 99								

Table 4. Significance of differences in success rates between courses.

Term	Likelihood Ratio	df	p
Spring 96	38.446	6	< 0.0005
Fall 96	30.339	5	< 0.0005
Spring 97	22.272	7	0.002
Fall 97	40.674	7	< 0.0005
Spring 98	32.353	7	< 0.0005
Fall 98	42.296	7	< 0.0005
Spring 99	35.354	7	< 0.0005

Table 5. Comparison of observed success rates to those expected if all courses were equal.

Term	DSPAN1A	DSPAN1B	DSPAN2A	DSPAN2B	SPAN1	SPAN1A	SPAN1B	SPAN2
Spring 96	lower				lower			higher
Fall 96	lower				higher			higher
Spring 97	lower				lower			higher
Fall 97	lower				lower		lower	higher
Spring 98	lower	lower						higher
Fall 98	lower							higher
Spring 99		lower			lower			higher

Table 6. Persistence rates for moving from Spanish 1 to Spanish 2 in consecutive terms.

Persistence	Destinos		Classroom	
	%	n	%	n
Spring 1996 to Fall 1996	31.6	19	12.6	475
Fall 1996 to Spring 1997	19.0	21	17.8	484
Spring 1997 to Fall 1997	22.2	18	14.2	430
Fall 1997 to Spring 1998	15.4	13	13.7	520
Spring 1998 to Fall 1998	9.5	21	9.4	395
Fall 1998 to Spring 1999	0.0	20	20.1	438

Table 7. Average persistence rates for moving from Spanish 1 to Spanish 2 in consecutive terms.

	Destinos	Classroom
Mean	16.3	14.6
sd	10.9	3.8
Median	17.2	14.0

Figure 5. Persistence of Spanish students in consecutive terms.

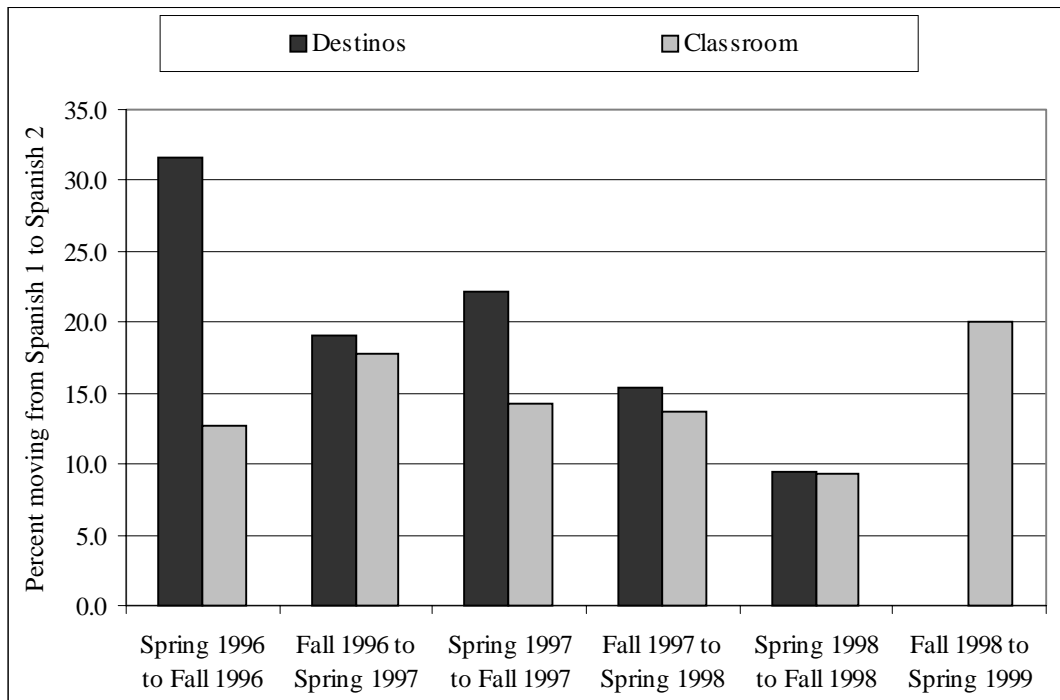


Table 8. Regression coefficients of persistence trends.

	R ²	b	F(1,4)	p
Destinos	0.906	-5.523	38.719	0.003
Classroom	0.027	0.337	0.113	0.754

Table 9. Enrollment of Destinos and Classroom Spanish.

Term	DSPAN1A	DSPAN1B	SPAN1	SPAN1A	SPAN1B	SPAN2	DSPAN2A	DSPAN2B	Total Spanish	Total Cabrillo
Spring 1993			567			309			876	13018
Fall 1993			638			278			916	12617
Spring 1994			489			251			740	13075
Fall 1994	58		567			227			852	12782
Spring 1995	60	22	468			236			786	13201
Fall 1995	40		488	20	1	205			777	12154
Spring 1996	67	21	490		16	248	9	10	861	13851
Fall 1996	64	21	497			183	36	2	803	12791
Spring 1997	55	18	431	28	26	179	19	13	769	13656
Fall 1997	46	13	521	28	22	209	21	7	867	13606
Spring 1998	50	22	400	31	15	181	18	9	726	13575
Fall 1998	57	22	437	40	24	171	15	3	769	13778
Spring 1999	33	19	333	20	11	180	9	2	607	13918

Figure 6. Enrollment for Cabrillo College and for all Spanish classes in Table 9.

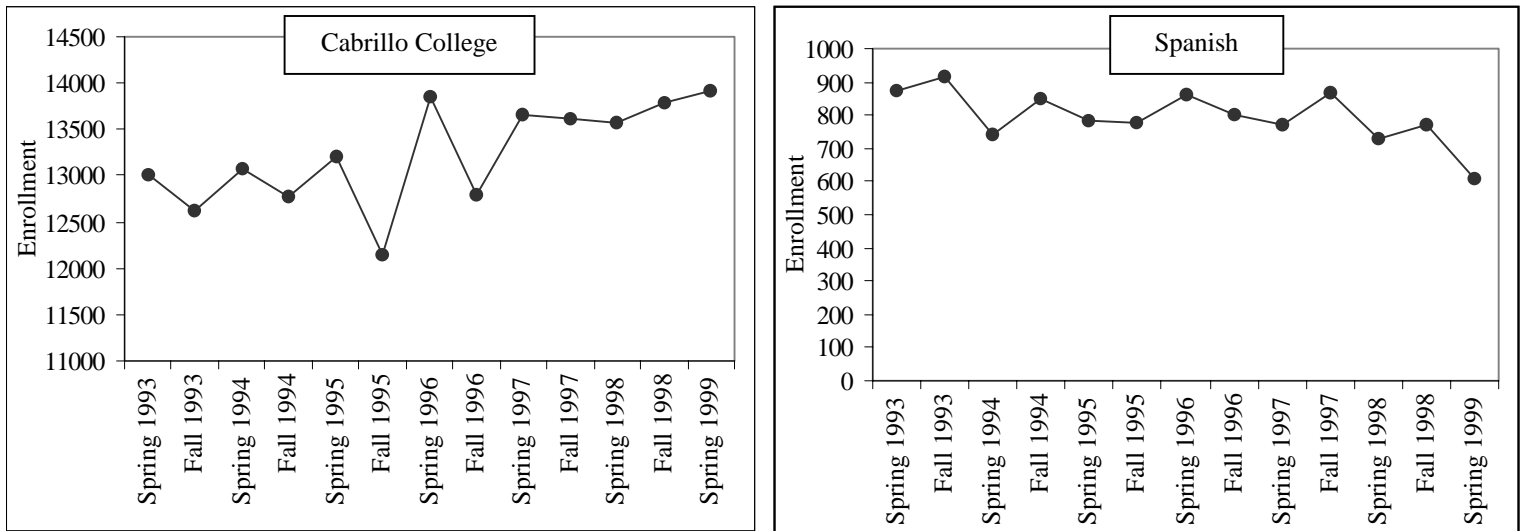


Figure 7. Enrollment of Classroom Spanish 1 with and without Destinos Spanish 1A included.

