



ESTADO LIBRE ASOCIADO DE
PUERTO RICO
DEPARTAMENTO DE EDUCACIÓN

The Boston Consulting Group

Hallazgos y Recomendaciones

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Presentando al equipo de BCG



Tyce Henry

*Principal,
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Tyce is a member of the leadership team for BCG's Education Practice, with broad experience advising school districts, state governments, universities and education services firms on issues of strategy, operations and organization. Tyce received his MBA from the Wharton School of Business at the University of Pennsylvania.



Allison Bailey

*Senior Partner and Head, North
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Allison has been with BCG since 1987 and leads BCG's Education Practice in the U.S. She is the Regional Practice Leader for BCG's People and Organization Practice and has deep experience advising clients across K-12, higher education, foundations, and global intermediaries (eg, World Economic Forum). Allison received her MBA from the Wharton School and her MA from Harvard's Kennedy School.



Danny Acosta

*Partner,
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Danny is a core member of BCG's Public Sector practice with a focus on performance management, organizational and operational effectiveness, economic planning, growth strategy, and large-scale transformation. He worked closely with Puerto Rico's Government Development Bank to develop an economic development plan. Danny holds a dual JD/MBA from Georgetown University.

Agenda

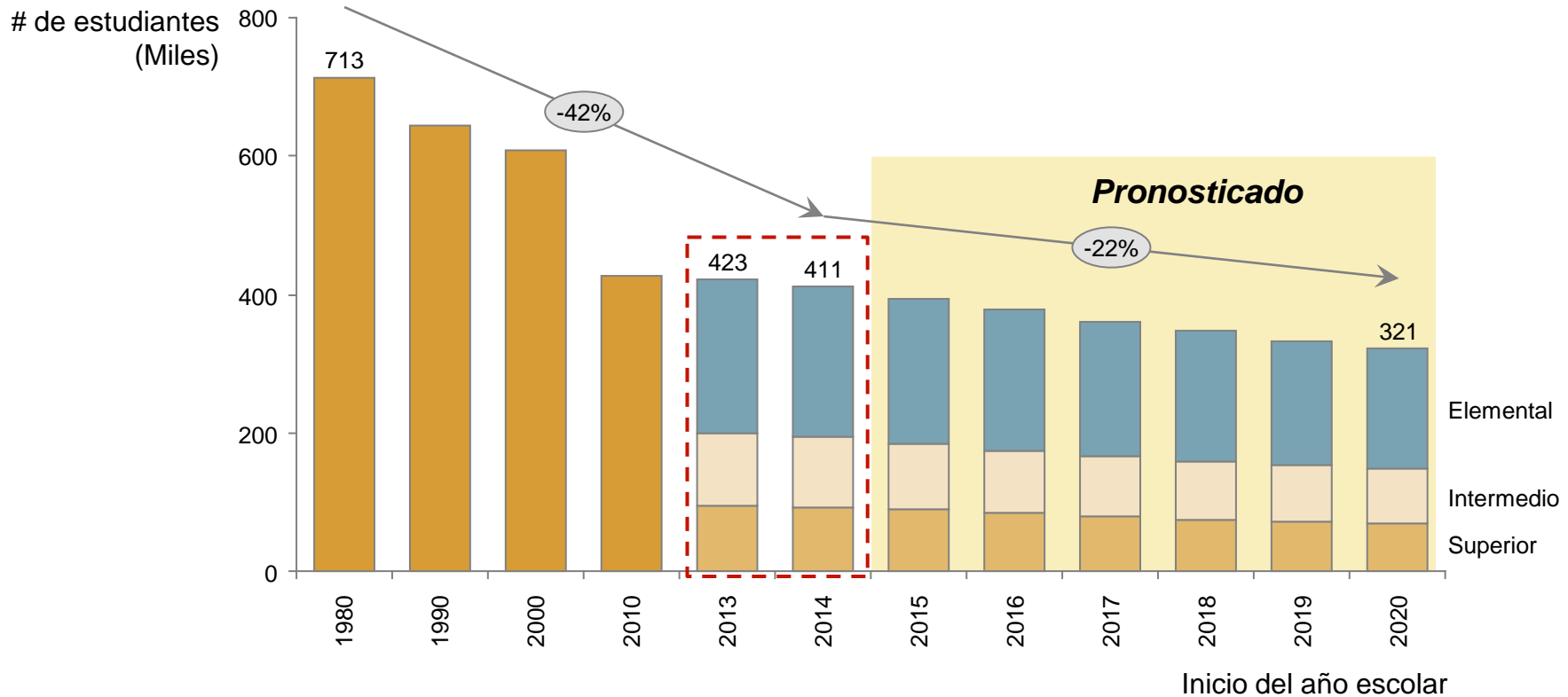
Overall PRDE context

School consolidation and docente staffing

PRDE administrative restructuring

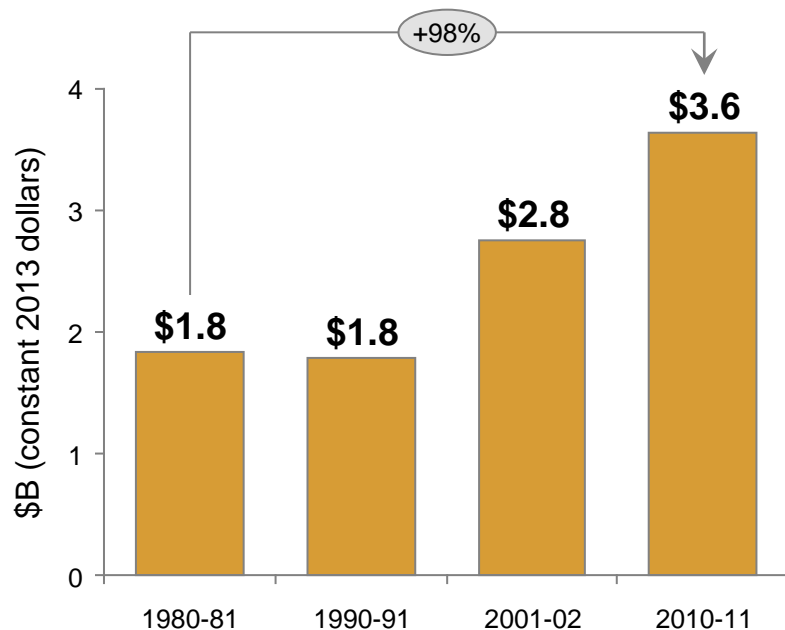
La matrícula se ha reducido un 42% desde el 1980 y se espera una caída adicional de 22% para el 2020

Matrícula histórica y pronosticada, 1980-2020

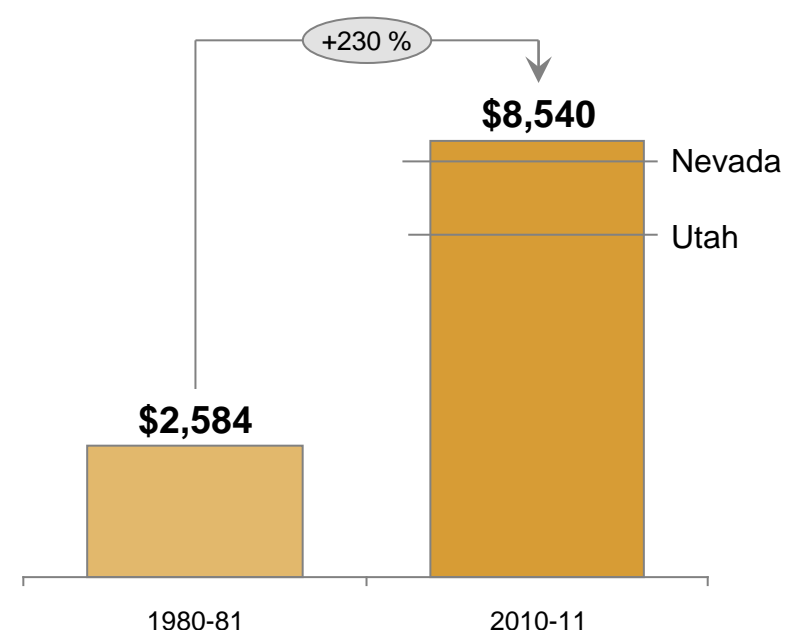


El gasto por estudiante se ha triplicado en los últimos 30 años

PRDE's inflation-adjusted budget doubled over the past 30 years ...



... while per-student spending more than tripled



DE gasta menos en instrucción y más en administración que cualquier otro Estado (50% en instrucción vs. 65% promedio en EEUU)

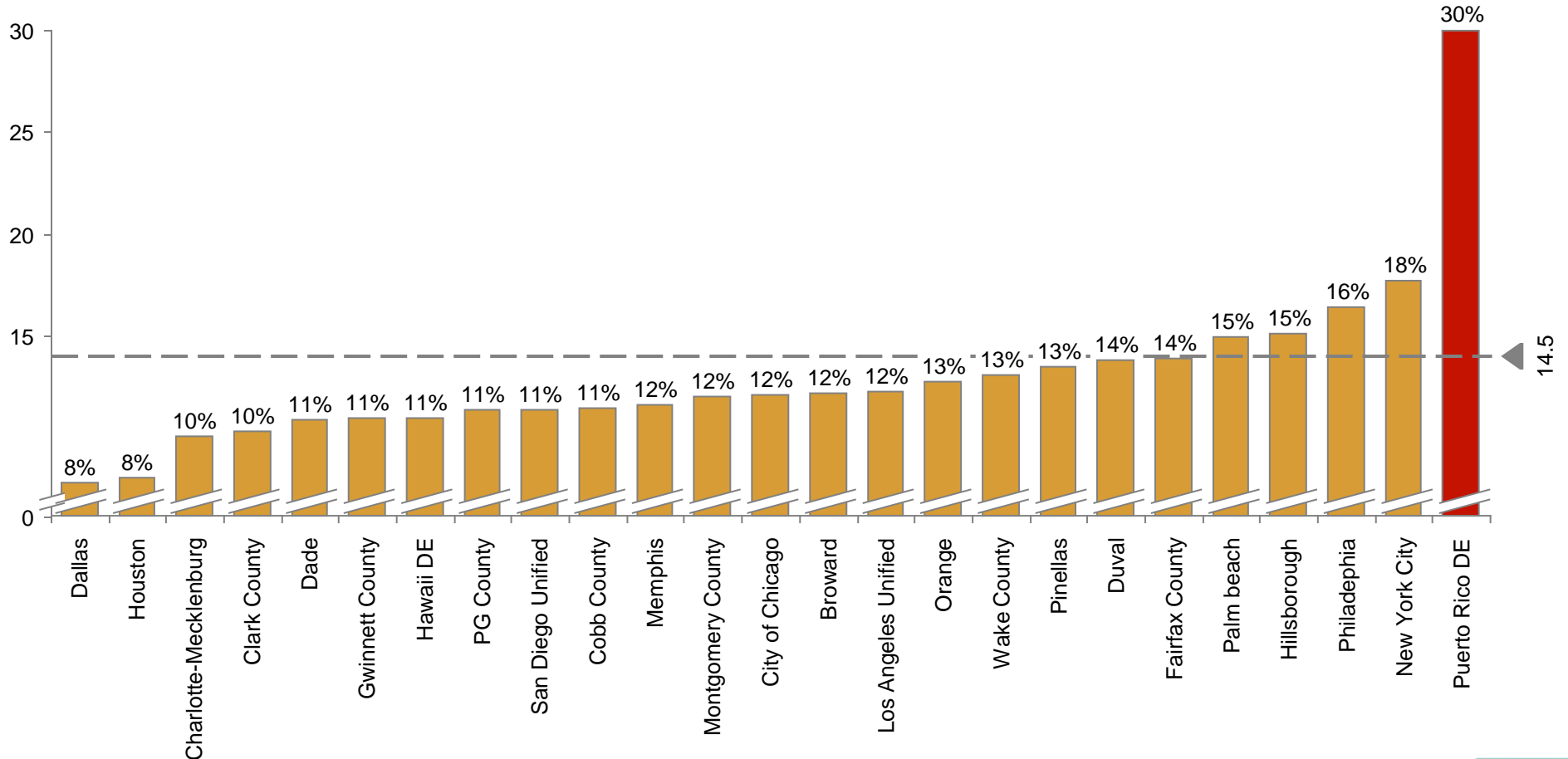
1. "Expenditures" include instruction, instruction-related, support services, and other elementary/secondary current expenditures, but exclude expenditures on capital outlay, other programs, and interest on long-term debt. Data used for 1980-1981, 1990-1991, and 2001-2002 come from "The Economy of Puerto Rico: Restoring Growth," Helen Ladd and Francisco Rivera-Batiz, p.209), which lists the PRDE as its source and uses 2003 constant dollars. For 2010-2011, data comes from NCES and has been adjusted to 2013 dollars using the CPI inflation calculator. Sources: National Center for Education Statistics, "The Economy of Puerto Rico: Restoring Growth"; National Center for Education Statistics, "Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2010-11, Table 2; BCG analysis



30% de estudiantes en educación especial (dos veces el promedio de EEUU), lo que aumenta el nivel de gasto

Special education population, top 25 US school districts by size

% Individualized Education Program Students [District] 2010-11

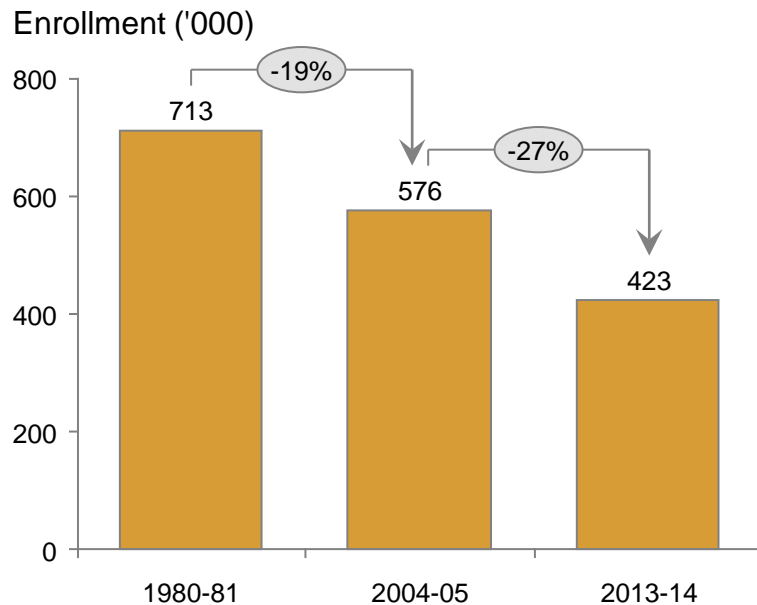


Note: New York City data from 2008-2009 school year; PR data from 2012-2013
Source, BCG analysis

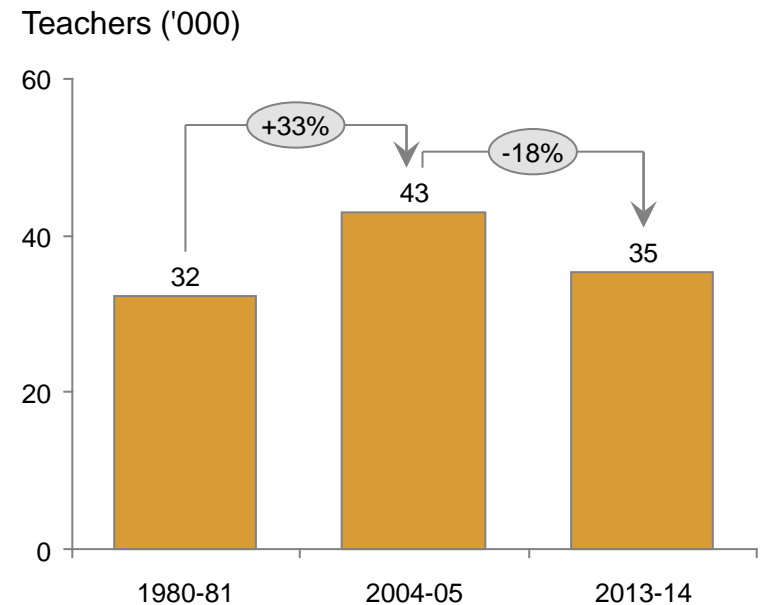


En la última década, la reducción de estudiantes ha sido más acelerada que la disminución de maestros

Since 2004, enrollment has declined by 27% ...



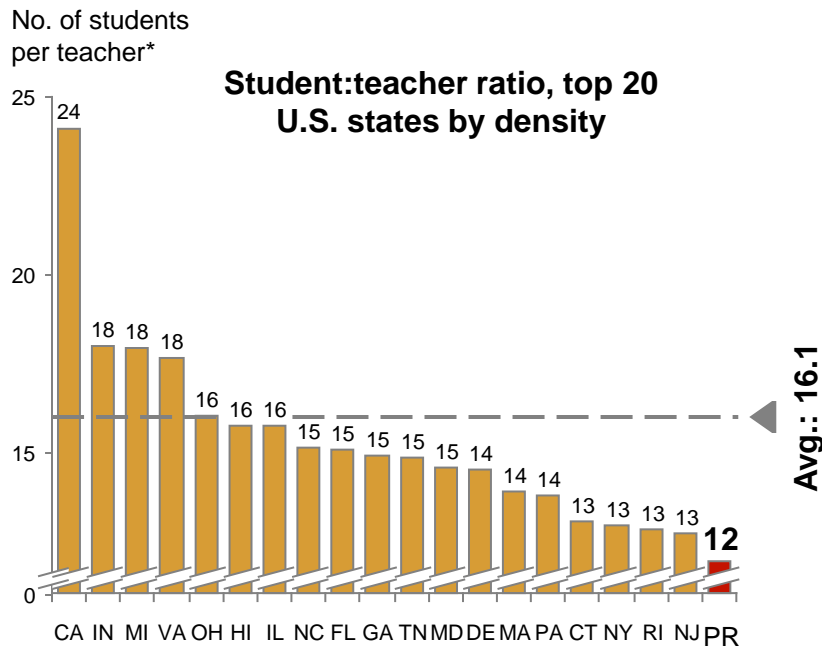
... while the number of teachers declined by 18%



Los estudiantes por maestro en PR se ha reducido de 22.1 en el 80 a 12.0 hoy en día (por debajo del promedio de EEUU de 16.1)

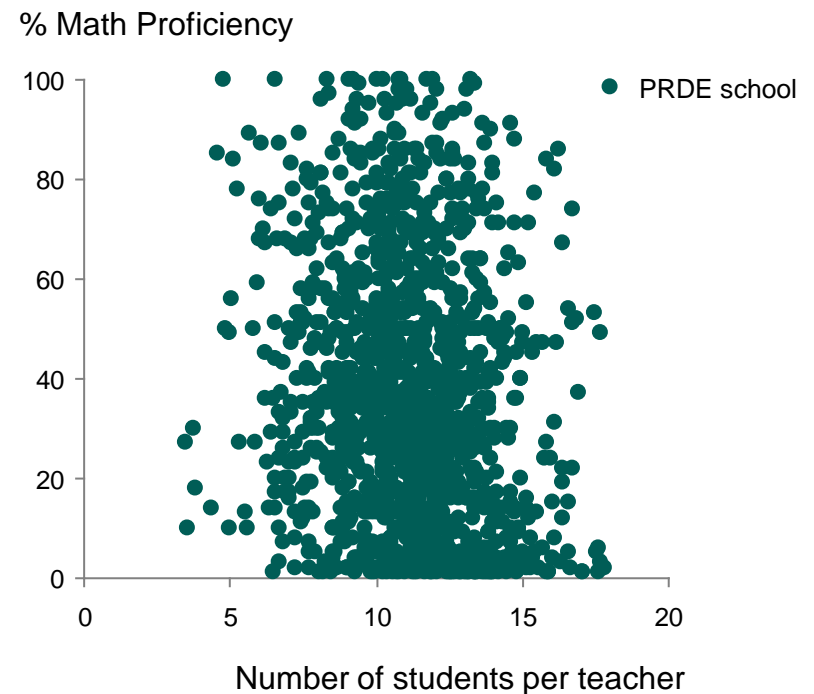
Salones de clase con menos estudiantes por maestro no resulta en aprovechamiento académico más alto

PRDE has a very low ratio of students to classroom teachers relative to U.S. states ...



* Note: excludes teachers working in administrative roles

... low ratios do not translate to higher student performance in PRDE schools



Note: Total number of students and teachers excludes Pre-K. Teachers include all regular, vocational, and special education teachers; Guidance councilors, social workers, and program coordinators excluded. All teachers are under active status within the January 2014 Plantilla.
Source: PRDE data, BCG analysis

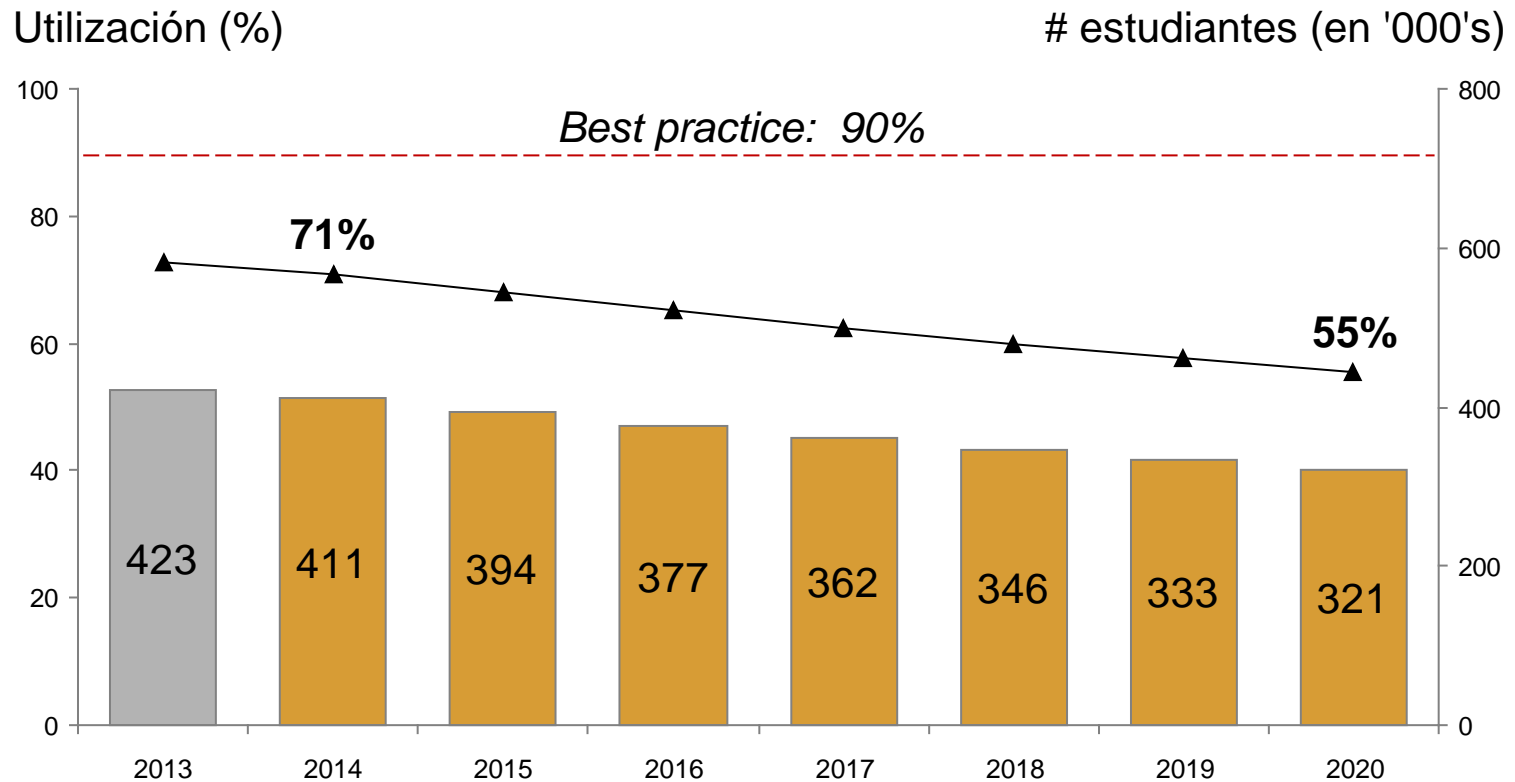
Agenda

Overall PRDE context

School consolidation and docente staffing

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La utilización de escuelas irá de 71% a 55% en el 2020 si no se realiza un esfuerzo de consolidación



Basada en M1 certificada del 2014

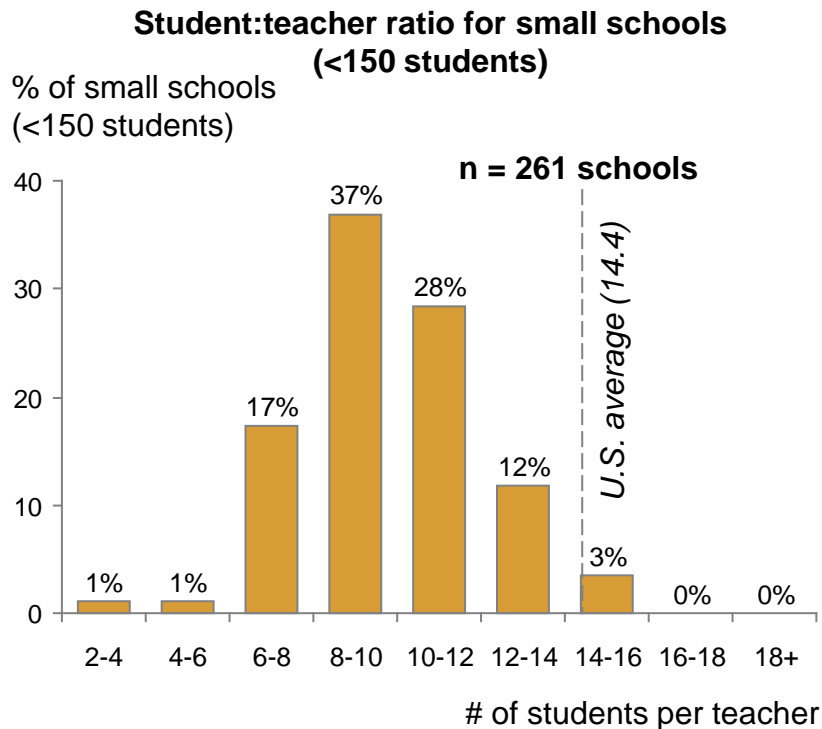
1. Schools omitted when capacity or enrollment were not available

Note: Other category includes schools with all grades and secondary schools (7-12).

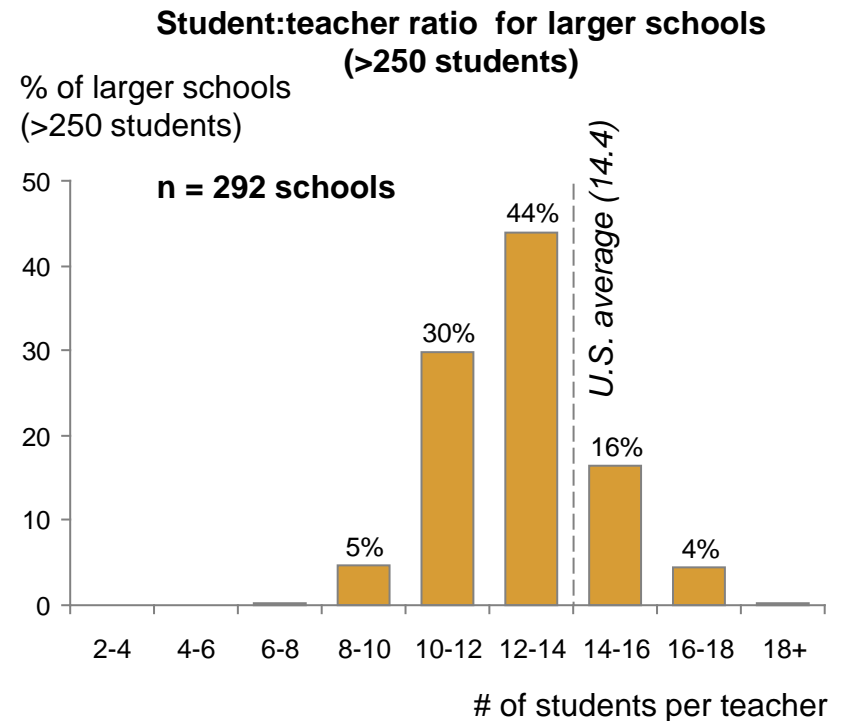
Sources: BCG analysis; US Census; 2014 M1 official enrollment data from PRDE as of October 2014. School capacity information from OMEP.

Las escuelas pequeñas y sub-utilizadas contribuye al bajo número de estudiantes por maestro

Small K-6 schools tend to have ratios of 6-10 students per teacher ...



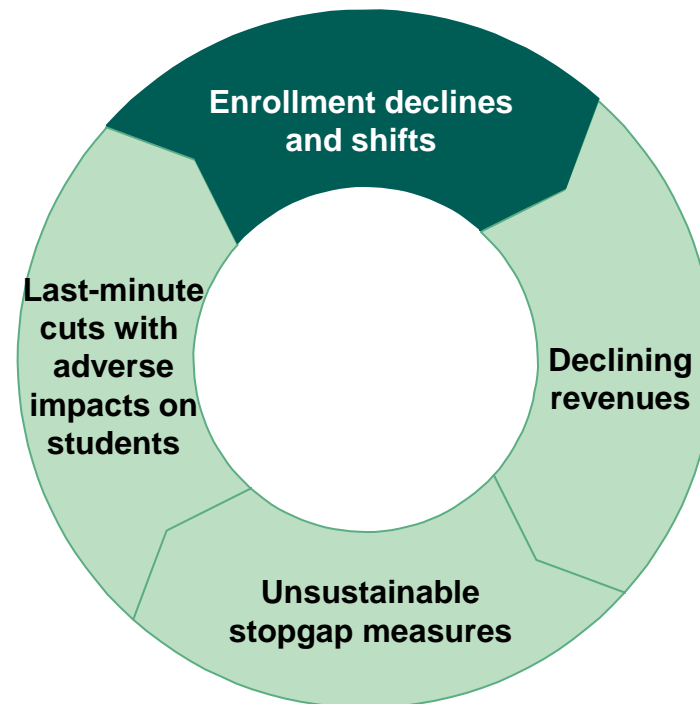
... while larger K-6 schools tend to see ratios of 10-16 students per teacher



La consolidación de escuelas es esencial para mejorar el aprovechamiento y las practicas de staffing de docentes

El enfocarse en la cantidad adecuada de escuelas le dará al DE más opciones en el futuro

- Declining population
- Declining birth rates
- Increasing shifts to private schools



- Increasing class size without focus on more effective teachers
- Cutting academic programs
- Decreasing length of school day

Driven directly by declining enrollment:

- Fewer students generating federal per-pupil revenues

Exacerbated by...

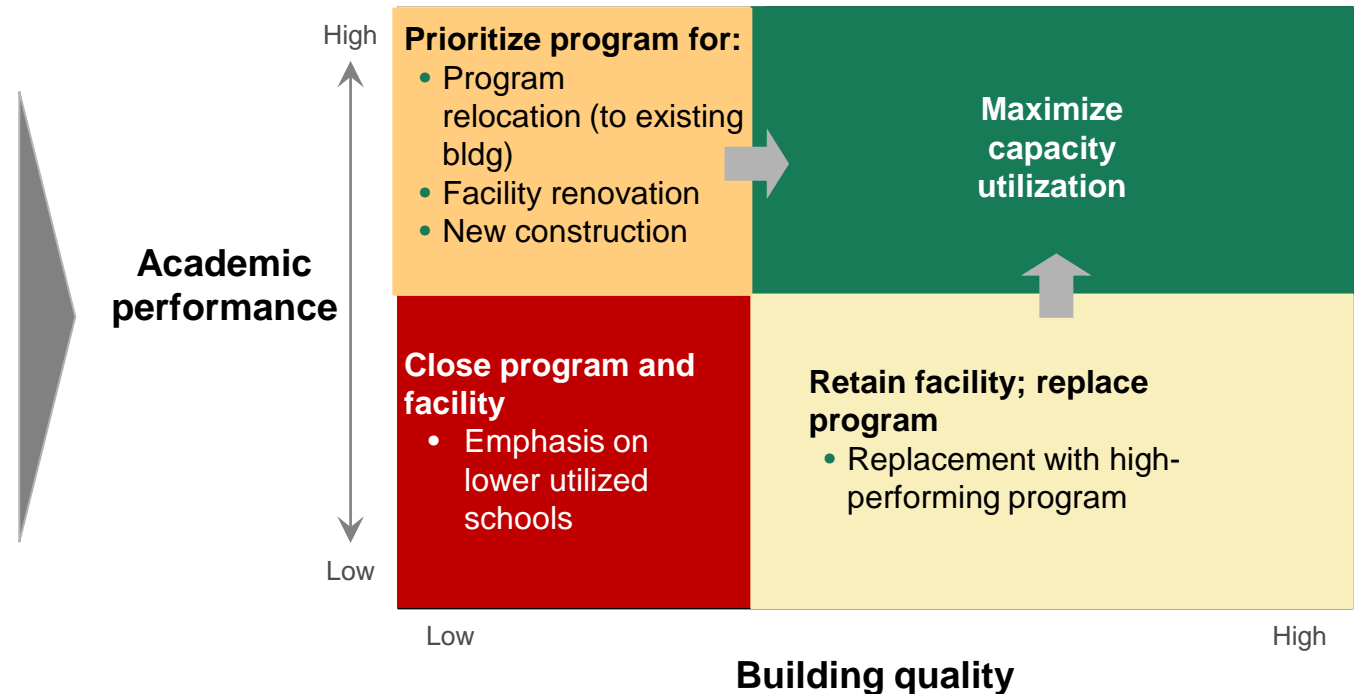
- Decreased state funding due to recession and government's fiscal crisis

- Drawing down "rainy day" reserves
- Deferring facilities maintenance

La metodología utilizada para identificar escuelas para la consolidación busca primordialmente mejorar el desempeño

Three main criteria for receiving candidates

- **Academic performance**
should be equal or better based on PPAA scores in Spanish and math
- **Building quality**
must be better based on regional director ratings, OMEP repair needs
- **Distance from closing school**
should be within ~3 -4 miles of driving distance



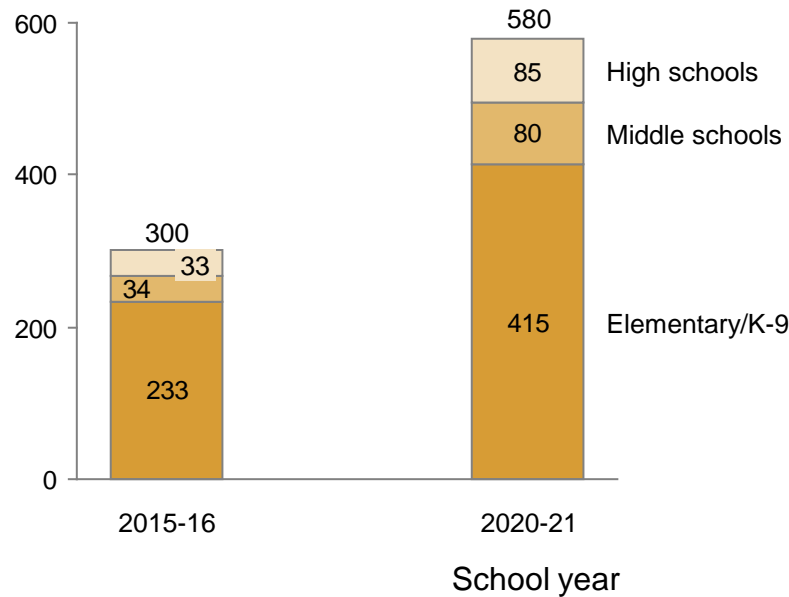
Objetivo: Consolidar escuelas con bajo desempeño académico y baja calidad en las instalaciones

Las proyecciones de matrícula de estudiantes sugieren potencial para consolidar / reconfigurar varias escuelas

Con la meta de llegar a 90% de utilización

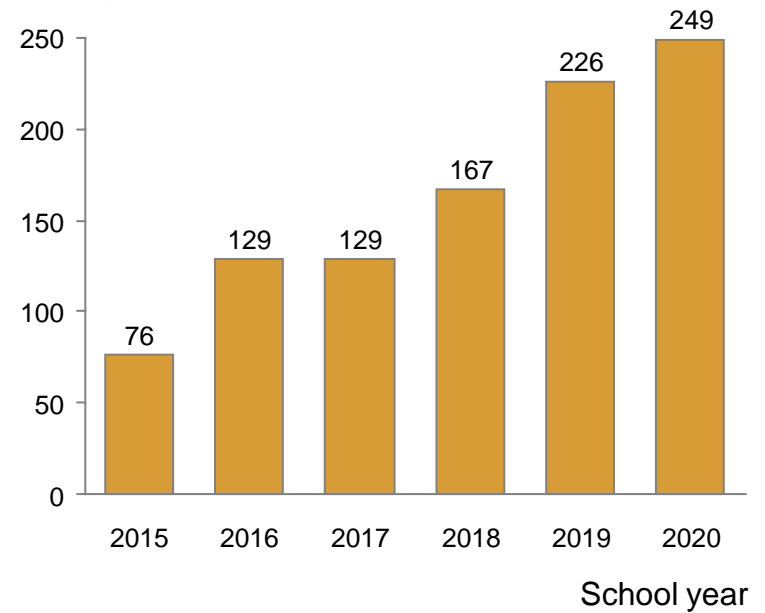
PRDE could reconfigure up to 300 schools now and 580 by 2020

Number of consolidated schools



By 2020, reconfiguration would free up to \$249M per year in costs

Savings (\$M)



La reconfiguración de escuelas es esencial para mejorar las prácticas de staffing de docentes

Ejemplo demuestra mejor oferta curricular con 30% menos maestros

Consolidating school			Receiving School (before)			Receiving School (after)		
Grade	Students	Teachers	Grade	Students	Teachers	Grade	Students	Teachers
K	17	4	K	21	5	K	38	7
1	2	•3 K-3	1	17	•4 K-3	1	19	•5 K-3
2	6	•1 Arts	2	18	•1 Arts	2	24	•2 Arts
3	10		3	18		3	28	
4	13	5	4	16	6	4	29	6
5	11	•2 4th-6th	5	26	•3 4th-6th	5	37	•3 4th-6th
6	12	•1 English	6	23	•2 English	6	35	•1 English
		•1 Consum.			•1 Consum.			•1 Consum.
		•1 Health						•1 Health
7	15	5	7	53	14	7	68	13
8	17	•1 Math			•2 Math			•2 Math
		•1 English			•2 English			•2 English
		•1 Spanish			•2 Spanish			•2 Spanish
9	12	•1 Spanish	8	58	•5 Science	8	75	•4 Science
		•1 Phys. Ed.	9	39	•2 Phys. Ed.	9	51	•2 Phys. Ed.
		•1 Librarian			•1 Librarian			•1 Librarian
Special Ed.	8	2	Special Ed.	n/a	3	Special Ed.	8	4
Total	123	16	Total	289	28	Total	412	30
<p>16 teachers 8:1 student:teacher ratio</p>			<p>28 teachers 10:1 student:teacher ratio</p>			<p>30 teachers 14:1 student:teacher ratio</p>		
<p>44 teachers</p>			<p>30 teachers (32% reduction -14 teachers)</p>					

La consolidación tiene beneficios académicos y fiscales para todo el sistema

Academic benefits

Move children to higher-quality schools

Increase academic and extracurricular offerings (eg, arts)

Recruit fewer, better school directors and teachers

Focus turnaround efforts

Invest in modern facilities and technology

Fiscal benefits

Use instructional staff more efficiently

Lower operations costs

Reduce administrative and support staff

Revenue from sale of facilities

Shrink backlog of deferred facilities maintenance

La consolidación de 70 escuelas y la implementación de nuevas prácticas de staffing permitieron reducir 2,450 puestos de docentes este año

	Teachers			Guidance Counselors & Social Workers			Total Docentes
	Perm.	Trans.	Total	Perm.	Trans.	Total	Total
January 2014 Staffing ¹	31,040	4,800	35,840	2,170	130	2,300	38,140
Attrition through July 31	(1,330)	570	(760)	(80)	50	(30)	(790)
Retirements ³	(1,770)	-	(1,770)	(130)	-	(130)	(1,900)
Transitorio contracts terminated on May 31	-	(5,370)	(5,370)	-	(180)	(180)	(5,550)
Transitorio hires	-	5,560	5,560	-	230	230	5,790
2014 – 2015 staffing (as of 9/2014)	27,940	5,560	33,500	1,960	230	2,190	35,690
Eliminated positions	(3,100)	760	(2,340)	(210)	100	(110)	(2,450)

1. Includes all teachers that are active or on paid or unpaid leave. Excludes non-teachers and abandoned, terminated, or suspended posts. 2. Estimate to be verified with latest plantilla data and PRDE projections. 3. PRDE estimate as of August 6. Excludes 92 estimated administrative retirements (facilitators, directors, etc.). Note: Numbers are rounded to the nearest 10. Source: PRDE data, BCG analysis

Los ahorros de la consolidación y la reducción en posiciones docentes se estiman en \$109M por año

	Category (\$M)	FY15	FY16	FY17
Recurring savings	Teacher, counselor, & social worker salary & benefits ¹	\$96	\$96	\$96
	Other personnel salary & benefits (~310 fewer) ^{1,2}	\$8	\$8	\$8
	Privatized services	\$2	\$2	\$2
	Electric (AEE) & Water (AAA)	\$2	\$2	\$2
	Maintenance ³	\$1	\$1	\$1
	Recurring Savings Total	\$109	\$109	\$109
Costs	Licencia payouts	(\$39)	\$0	\$0
	Facility costs (shutdown, moving, repairs) ⁴	(\$8)	\$0	\$0
	Academic investments ⁵	(\$20)	(\$20)	(\$20)
TOTAL IN-YEAR SAVINGS		\$42	\$89	\$89
CUMULATIVE SAVINGS		\$42	\$131	\$220

1. Includes State's retirement contribution, special laws (Christmas and medical), Social Security contribution for non-docente and Medicare contribution for docente, FSE, and unemployment. 2. Reduction of non-teachers made up of school directors, janitors, food service workers, and guards. 3. Maintenance costs extrapolated on a smaller sample of 51 potential school closures due to data limitations. 4. Confirmed OGP budget. 5. Estimating new teacher hires to reduce class size to 15 students per class in K-3 in selected school interventions (or other interventions to be determined by head of Asuntos Académicos. Source: PRDE Office of Budget and Office of Human Resources

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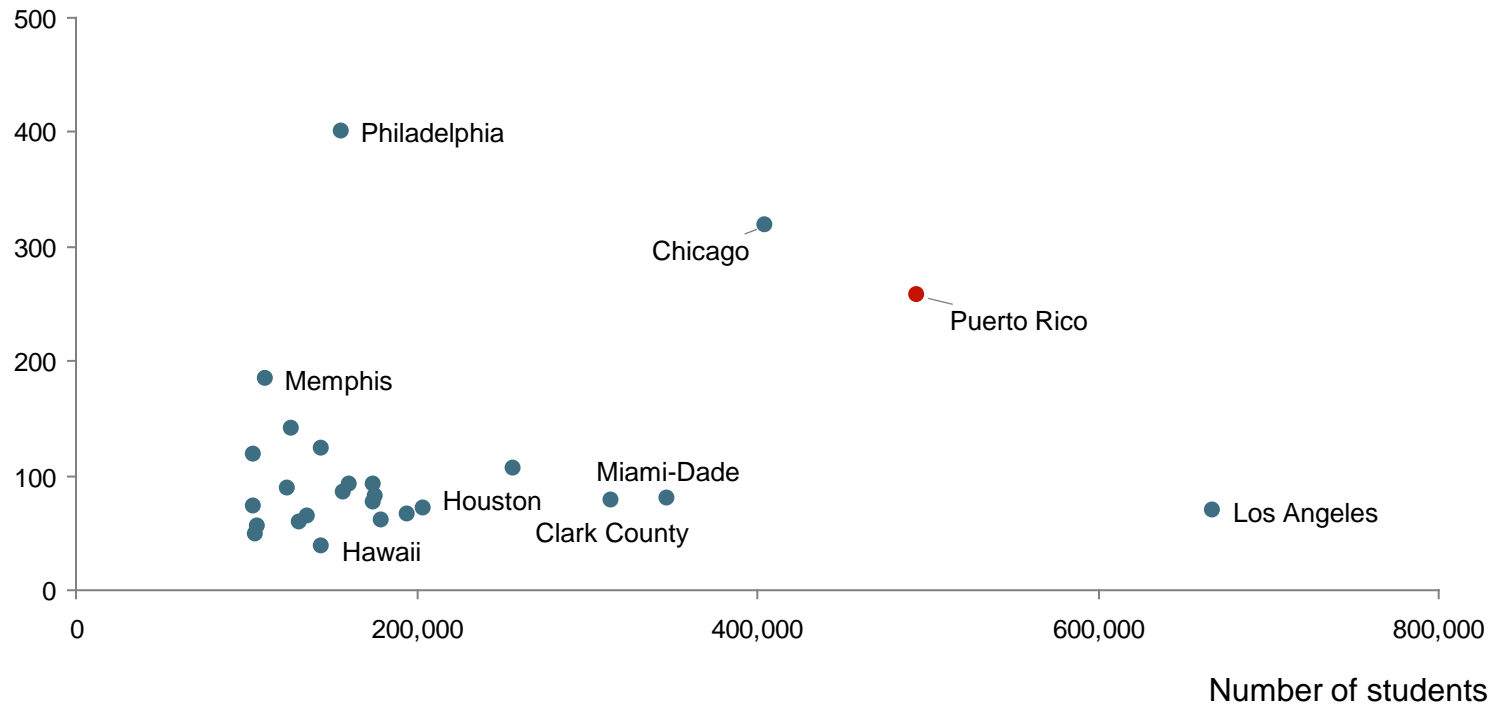
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Los gastos en administración por estudiante del DE son mayores que la mayoría de los distritos grandes de EEUU

General administrative costs per-pupil among large U.S. districts



Los costos administrativos de PR (\$260 por estudiante) son más que el triple vs. Los Angeles (\$69/estudiante) o Miami-Dade (\$81/estudiante)

1. Defined as the sum of all expenditures for school district administration, including boards of education and their staff, and executive administration. Also included are expenditures for legal activities in interpretation of laws and statutes, and general liability situations. Data is from 2010 – 2011 unless otherwise noted. Source: NCES 2011 data, BCG analysis

El DE pudiera reinvertir entre \$75 y \$100M en instrucción al reducir los costos administrativos

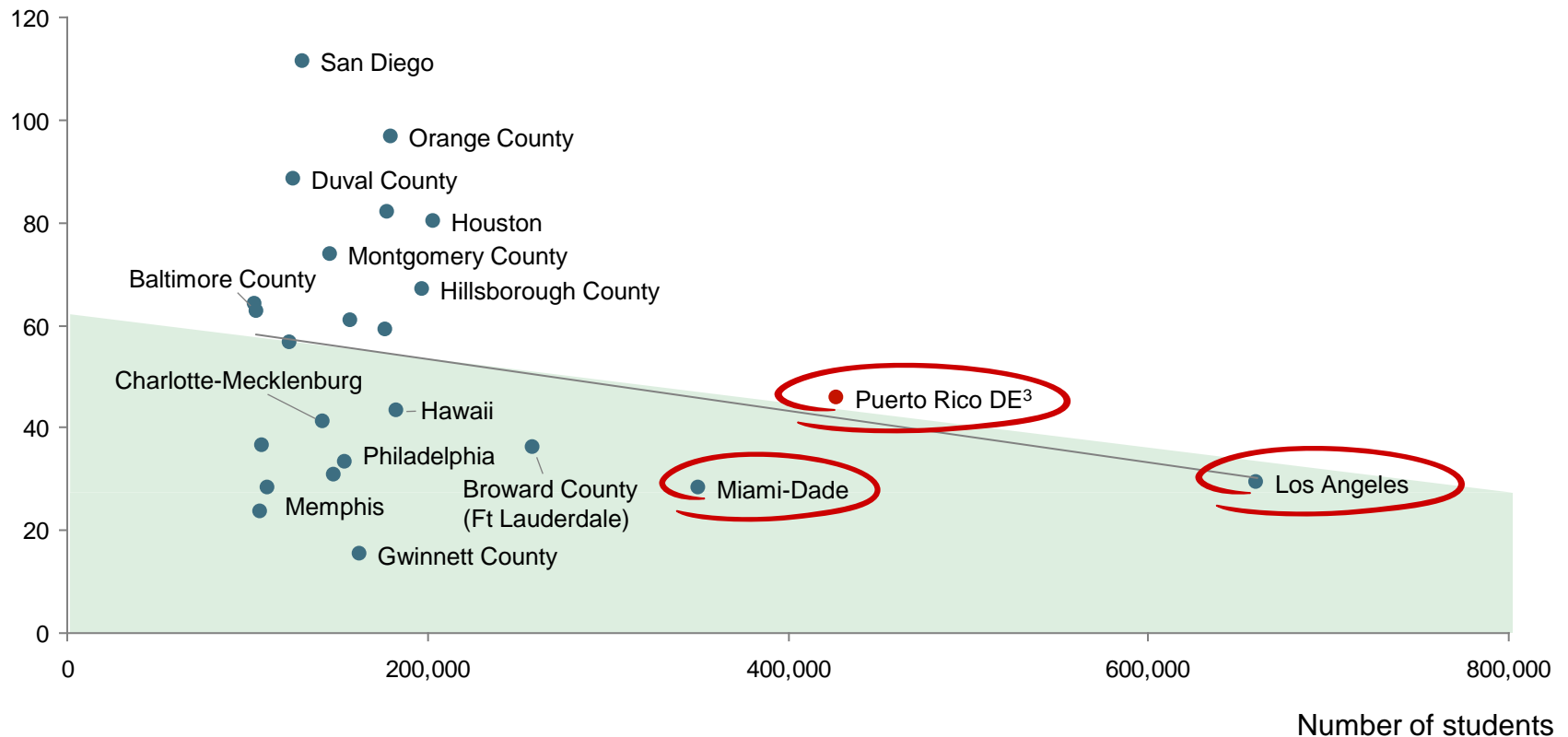
District	# of pupils	Admin cost per pupil (\$)	Total admin cost ¹ (\$M)	Projected PRDE admin cost at benchmark (\$M)	PRDE savings at benchmark (\$M)
Philadelphia	155,856	401	62	198	(70)
Chicago	404,584	319	129	158	(30)
Puerto Rico DE	493,393	258	127	127	-
Broward County	256,472	107	27	53	75
Gwinnett County	160,744	93	15	46	82
Palm Beach	174,663	92	16	45	82
Dallas	157,143	86	13	42	85
Orange County	176,008	82	14	40	87
Miami-Dade	346,842	81	28	40	88
Clark County	313,866	78	24	38	89
Fairfax	174,428	77	13	38	90
Houston	204,245	72	15	35	92
Los Angeles	667,090	69	46	34	93
Hillsborough County	194,525	66	13	33	95
Hawaii	179,601	60	11	30	98

1. Defined as the sum of all expenditures for school district administration, including boards of education and their staff, and executive administration. Also included are expenditures for legal activities in interpretation of laws and statutes, and general liability situations. Data is from 2010 – 2011 unless otherwise noted. Source: NCES 2011 data, BCG analysis

El DE tiene más personal administrativo que la mayoría de los distritos de EEUU

General administrative staff per 10,000 students, for 25 largest districts¹

Administrator staff² per 10k students



1. Data not available for NYC, Chicago, and Clark county. 2. As identified by NCES. Includes chief executive officers of education agencies, Districts, deputies, and assistant Districts; other persons with districtwide responsibilities, e.g., business managers, administrative assistants, and professional instructional support staff; and staff members providing direct support to LEA administrators, business office support, data processing, secretarial and other clerical staff. 3. Inclusive of 1,952 Central, Regional, and District office administrative positions. Source: NCES 2012 data, PRDE April 23 Plantilla, BCG analysis

Los comparativos sugieren que el DE pudiera reinvertir ~\$30M en instrucción al reducir posiciones administrativas

District	# of students	District staff / 10k students	Total district staff ¹	Projected PRDE admin staff at benchmark	Projected savings (positions)	Projected salary + benefits savings ² (\$M)
PRDE (2014 Plantilla) ³	427,113	46	1,952	N/A	-	-
Los Angeles (2012 NCES)	659,639	29	1,932	1,251	701	28
Miami-Dade (2012 NCES)	350,239	28	996	1,214	737	29

1. As identified by NCES. Includes chief executive officers of education agencies, Districts, deputies, and assistant Districts; other persons with districtwide responsibilities, e.g., business managers, administrative assistants, and professional instructional support staff; and staff members providing direct support to LEA administrators, business office support, data processing, secretarial and other clerical staff. 2. Represents savings on salary and benefits, based on average PRDE administrator salary and benefits of \$39,480. 3. Inclusive of 1,952 Central, Regional, and District office administrative positions. Source: NCES 2012 data, PRDE April 23 Plantilla, BCG analysis



Thank you

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