

## **Technical Appendices**

# College Readiness as a Graduation Requirement:

An Assessment of San Diego's Challenges

Julian R. Betts, Andrew Zau, and Karen Volz Bachofer

## Contents

Appendix A. Further Background on a-g Requirements in Five Districts

Appendix B. Additional Information on Data Used

Appendix C. Supplemental Results

Appendix D. The Most Frequently Attended Postsecondary Institutions

Supported with funding from the Donald Bren Foundation

## Appendix A: Further Background on a–g Requirements in Five Districts

Table A1 provides more detail, including sources, of information on the graduation requirements in each of the affected districts.

TABLE A1 Additional detail on a–g graduation requirements in five California districts

District	Policy	Effective date	Source
SDUSD	Students must meet UC a–g requirements but may do so by earning a D or higher in each course, rather than a C or higher as required by UC. Other differences between UC a–g and SDUSD requirements include: students must complete 3 years of science (1 life and 1 physical that meet UC "d" and an additional science that meets either the "d" or "g" requirement) rather than the 2 years required by UC, and 3 years of social science (U.S. history, world history) rather than the 2 required by UC. Overall GPA of is 2.0 required for graduation.	Class of 2016.  Policy originally included 2 required CTE courses. Decision to remove CTE requirement was made by the board of education on April 10, 2012.	www.sandi.net/Page /35459
LAUSD	All 9th grade students must be enrolled in the UC a–g course sequence beginning in fall 2008. In spring of the 10th grade year, students/parents may request a "course substitution" waiver to opt out of the third year of mathematics and/or the world languages requirement (substituting only UC-approved a–g courses). Beginning with the class of 2016, all students must complete UC a–g with a D or higher (not a C or higher as required by UC). Beginning with the class of 2017, students must earn a C or higher. There is no minimum GPA required for graduation.	Class of 2012.  The board of education voted to implement UC a–g requirements on June 14, 2005. Beginning with the class of 2006, students must also complete a career pathway. On May 8, 2012, the board voted to reduce the number of credits required to graduate to help students complete a–g.	http://notebook.lausd .net/pls/ptl/docs/PAGE /CA_LAUSD/FLDR _ORGANIZATIONS /FLDR_INSTRUCTION AL_SVCS/GRADUATI ON%20REQUIREMEN TS%20FOR%20GRAD UATING%20CLASSES %202014%20%26%20 2015.PDF
SJUSD	Students may complete a–g coursework with a D or higher. Students are required to compete 3.5 years of social science, 3 years of science (2 must be lab sciences), and 2 years of VAPA—all courses must be UC-approved. There is a waiver or opt-out process. Overall GPA of 1.0 is required for graduation.	Class of 2002	www.sjusd.org /learning-options /docs/SanJoseUnified GradReqs.pdf and http://www.edtrust.org /west (page 5)
SFUSD	Students may complete a–g coursework with a D or higher. SFUSD requires 3 years of social science, not the 2 required by UC. No opt-out policy is in place. "Alternative opportunities" to earn course credit are in place. Minimum overall GPA for graduation is not specified.	Class of 2014	www.sfusd.edu/en/asse ts/sfusd- staff/curriculum-and- standards/files/a-g- implementation-faq.pdf
OUSD	Students may complete a–g coursework with a D or higher. OUSD requires 3 years of social science (rather than the 2 years required by UC) and 3 years of science (rather than the 2 years required by UC). Special education students may be exempt from the requirement. Students in continuation schools are exempt. Overall GPA of 2.0 is required for graduation.	Class of 2015	http://publicportal.ousd.k12.ca.us/Page/138; http://publicportal.ousd.k12.ca.us/domain/25; and www.ousd.k12.ca.us /cms/lib07/CA01001176 /Centricity/Domain/25 /A-G_FAQ_4.5.11.pdf

## Appendix B: Additional Information on Data Used

### Sample Selection

The sample for this study was selected by first taking all unique student identification numbers where the listed graduation year was 2011. Students who had no qualifying coursework were removed, since those students would not have added any further information. A list of enrollment and transfer records for all students from the 2011 graduation year was used to determine whether students would be kept for further study based on their transfer status. Students who transferred out of the district or left the district for reasons other than dropping out of school were excluded because they would not have had an opportunity to complete the required curriculum. Broadly speaking, students were excluded if they did not return to school but did not drop out, died, transferred to another district/state/country, entered homeschooling, entered a nondiploma program, left for medical reasons, or transferred to a private school. Students who left for charter schools were also excluded because charters schools do not have the same graduation requirements. Graduates included those students who appeared on the district's graduation record but excluded those earning a General Equivalency Diploma and letter of recognition, which is a nondiploma-bound program for special education students. The total number of students left was 9,747 and the number with a graduation record was 6,433.

### High Schools in the Study

Clairemont

Crawford CHAMPS

Crawford IDEA

Crawford Law and Business

Crawford Multimedia and Visual Arts

Garfield Hoover

iHigh Virtual Academy

Kearny Construction Technology Kearny Digital Media and Design Kearny International Business Kearny Science and Technology

La Jolla Lincoln Madison Mira Mesa Mission Bay

Morse

Mt. Everest Academy

Muir

Patrick Henry Point Loma

San Diego Business

San Diego Communication
San Diego Early/Middle College

San Diego High School of International

Studies (IB)

San Diego LEADS

San Diego Metro Career and Technology

San Diego MVP Arts

San Diego Science and Technology School of Creative and Performing Arts

Scripps Ranch

Serra Twain

University City

## Appendix C: Supplemental Results

Table C1 lists the a–g completion rate of students and the number of years their data are available. In some cases, all six years of data are available and others have at least four years in grades 7 through 12. The four years of data may include any four years, continuous or not. The one restriction is that the student did not transfer out of the district. The results show the importance of having more years of data, as completion rates increase considerably with more years of data.

TABLE C1 UC a–g completion, by number of years of data and subject area

	All students with	6 years of data	All students with at least 4 years of data		
Subject	Frequency	Percentage	Frequency	Percentage	
Social studies (a)	4,213	72.3	5,409	63.2	
English (b)	3,298	56.6	4,055	47.4	
Math (c)	3,223	55.3	4,117	48.1	
Science (d)	4,299	73.8	5,560	65.0	
Foreign language (e)	3,717	63.8	4,671	54.6	
VPA (f)	5,065	86.9	6,745	78.8	
Elective (g)	5,358	91.9	7,258	84.8	
UC a-g	2,249	38.6	2,692	31.5	
Total Number	5,828		8,555		

TABLE C2
Types of graduation documents issued by SDUSD and percentage tracked by the National Student Clearinghouse (NSC)

Graduation document type	Number	Percentage	Percentage with NSC
Graduated, CAHSEE exempt	78	1.2	33.3
Graduated, CAHSEE modifications	42	0.6	57.1
Joint Diploma Program (JDP)	134	2.1	35.1
Passed California High School Proficiency Exam	3	0.1	33.3
Diploma	6,176	96.0	71.9
Total	6,433	100.0	68.8
Students who did not graduate	3,314		

NOTE: Students without NSC results either did not attend a postsecondary institution or attended an institution not included in NSC.

Tables C3–C11 show the number and percentage completing the a–g requirements with a C or higher by gender, ethnicity, EL status, and parental education level for both graduates and all students who did not transfer.

TABLE C3
UC a–g completion rate with a C or higher, by gender and graduation status

All students (N = 9,747)			Graduates (N = 6,433)			
Gender	Number	Total	Percentage	Number	Total	Percentage
Female	1,505	4,778	31.5	1,503	3,271	46.0
Male	1,189	4,969	23.9	1,187	3,162	37.5

TABLE C4 UC a–g completion rate with a C or higher, by ethnicity and graduation status

	Graduates					
Ethnicity	Number completed	Total	Percentage	Number completed	Total	Percentage
White	1,086	2,558	42.5	1,084	1,883	57.6
African American	253	1,273	19.9	253	768	32.9
Asian	739	1,667	44.3	738	1,364	54.1
Hispanic	586	4,098	14.3	585	2,362	24.8
Other	30	80	37.5	30	53	56.6
Missing		71			3	
Total Number		9,747			6,433	

TABLE C5
UC a–g completion rate with a C or higher, by English Learner status and graduation status

	All students			Graduates			
	Number	Total	Percentage	Number	Total	Percentage	
Ever English Learner	1,076	3,595	29.9	631	2,185	28.9	
Currently EL	288	1,756	16.4	166	818	20.3	
RFEP	788	1,839	42.9	465	1,367	34.0	
Never EL	2,865	6,152	46.6	2,059	4,248	28.9	
Total Number		9,747			6,433		

TABLE C6 UC a–g completion with a C or higher, by parental education level  $\,$ 

	All students			Graduates		
Parental education level	Number	Total	Percentage	Number	Total	Percentage
Not high school graduate	143	1,035	13.8	143	559	25.6
High school graduate	279	1,755	15.9	279	1,041	26.8
Some college	472	1,875	25.2	471	1,257	37.5
College graduate	829	2,383	34.8	828	1,722	48.1
Graduate school	912	2,007	45.4	910	1,583	57.5
Missing	59	692	8.5	59	271	21.9
Total Number		9,747			6,433	

TABLE C7
Postsecondary school status of English Learners by high school graduation status and whether students completed a–g requirements with grades of C or higher

	All students		Graduates		UC a-g graduates	Non a–g graduates
Postsecondary	Number	Percentage	Number	Percentage	Percentage	Percentage
4-year school	420	11.7	420	19.2	46.9	8.0
2-year school	908	25.3	906	41.5	33.3	44.8
None	2,257	62.8*	849	38.9*	19.8	46.6*
UC/CSU	342	9.5	342	15.7	42.5	4.8
Total Number	3,595		2,243		631	1,554

<sup>\*</sup>Some students attended a trade school, not classified as a two-year or four-year school.

TABLE C8
Postsecondary school status of RFEP students by high school graduation status and whether students completed a–g requirements with grades of C or higher

	All students		Graduates		UC a–g graduates	Non a–g graduates
Postsecondary	Number	Percentage	Number	Percentage	Percentage	Percentage
4-year school	308	16.8	308	22.5	48.2	9.0
2-year school	590	32.1	590	43.2	33.1	48.3
None	936	50.9	464	33.9*	18.4	42.1*
UC/CSU	257	14.0	257	18.8	45.0	5.3
Total Number	1,839		1,367		465	902

<sup>\*</sup>Some students attended a trade school, not classified as a two-year or four-year school.

TABLE C9
Completion percentages of a–g requirements with a C or higher, by high school

		Graduates	
High school	Total	Number	Percentage
High Tech*	115	115	100
The Preuss School*	97	86	88.7
San Diego International Studies (IB)	115	100	87.0
Scripps Ranch	528	358	67.8
La Jolla	356	230	64.6
Mt. Everest Academy	20	12	60.0
SCPA	175	99	56.6
University City	405	221	54.6
Mira Mesa	590	286	48.5
Crawford CHAMPS	54	26	48.2
Patrick Henry	497	231	46.5
Crawford Law and Business	38	16	42.1
Serra	364	144	39.6
Clairemont	264	103	39.0
Point Loma	423	163	38.5
Kearny DMD	81	31	38.3
Morse	373	135	36.2
Kearny Science and Technology	64	23	35.9
Madison	242	83	34.3
Mission Bay	269	92	34.2
Lincoln	376	121	32.2
Hoover	306	94	30.7
Kearny Construction Technology	85	26	30.6
Crawford IDEA	33	10	30.3
Kearny International Business	82	20	24.4
San Diego LEADS	94	21	22.3
San Diego Science and Technology	63	13	20.6
San Diego Communication	38	6	15.8
San Diego Business	76	11	14.5
San Diego MVP Arts	65	6	9.2
Crawford Multimedia and Visual Arts	58	2	3.5
Twain	112	0	0.0

<sup>\*</sup>Percentages were taken from the CDE website.

TABLE C10 Average number of courses completed with a C or higher, for the entire sample and for high school graduates, by subject

	All stu	ıdents	Graduates		
Subject	Number required	Mean	SD	Mean	SD
Social studies (a)	4	2.8	1.6	3.6	0.8
English (b)	8	5.4	2.9	7.1	1.5
Math (c)	6	3.9	2.1	5.0	1.5
Science (d)	4	2.8	1.6	3.7	0.8
Foreign language (e)	4	2.5	1.7	3.2	1.3
VPA (f)	2	1.5	0.8	1.8	0.5
Elective (g)	2	1.6	0.8	2.0	0.3
UC a-g	30	20.6	9.9	26.4	4.7
Total Number		9,7	'47	6,4	133

TABLE C11
Number of subject areas completed with a C or higher

	All stu	ıdents	Graduates	
Number of completed subject areas	Number	Percentage	Number	Percentage
0	1,560	16.0	55	0.9
1	913	9.4	132	2.1
2	957	9.8	390	6.1
3	825	8.5	586	9.1
4	801	8.2	684	10.6
5	877	9.0	808	12.6
6	1,223	12.6	1,191	18.5
All a-g	2,591	26.6*	2,587	40.2*
Total Number	9,747		6,433	

NOTE: Students who complete all seven subject areas meet the requirements for UC.

Tables C12–C15 show the percentage completing the a–g requirements with a D or higher, by gender, ethnicity, EL status, and parental education level for both graduates and all students who did not transfer.

TABLE C12 UC a–g completion rate, by gender and graduation status

All students (N = 9,747)			Gra	duates (N = 6,	433)	
Gender	Number	Total	Percentage	Number	Total	Percentage
Female	2,118	4,778	44.3	2,110	3,271	64.5
Male	1,823	4,969	36.7	1,820	3,162	57.6

TABLE C13 UC a-g completion rate with a D or higher, by ethnicity and graduation status

All students				Graduates			
Ethnicity	Number completed	Total	Percentage	Number completed	Total	Percentage	
White	1,393	2,558	54.5	1,389	1,883	73.8	
African American	414	1,273	32.5	411	768	53.5	
Asian	974	1,667	58.4	973	1,364	71.3	
Hispanic	1,124	4,098	27.4	1,121	2,362	47.5	
Other	36	80	45.0	36	53	67.9	
Missing		71			3		
Total Number		9,747			6,433		

<sup>\*</sup>Some students substituted one year of ESL to complete the English requirement.

TABLE C14 UC a–g completion rate with a D or higher, by English Learner and graduation status

	All students			Graduates		
	Number	Total	Percentage	Number	Total	Percentage
Ever English Learner	1,076	3,595	29.9	1,076	2,185	49.2
Currently EL	288	1,756	16.4	288	818	35.2
RFEP	788	1,839	42.9	788	1,367	57.6
Never EL	2,865	6,152	46.6	2,854	4,248	67.2
Total Number		9,747			6,433	

TABLE C15 UC a–g completion with a D or higher, by parental education level

	All students			Graduates		
Parental education level	Number	Total	Percentage	Number	Total	Percentage
Not high school graduate	253	1,035	24.4	253	559	45.3
High school graduate	480	1,755	27.4	479	1,041	46.0
Some college	758	1,875	40.4	755	1,257	60.1
College graduate	1,190	2,383	50.0	1,186	1,722	68.9
Graduate school	1,161	2,007	57.9	1,158	1,583	73.2
Missing	99	692	14.3	99	271	36.5
Total Number		9,747			6,433	

TABLE C16
Completion percentages of a–g with a D or higher, by high school

	Graduates					
High school	Number	Total	Percentage			
Mira Mesa	403	590	68.3			
Scripps Ranch	428	528	81.1			
Patrick Henry	364	497	73.2			
Point Loma	255	423	60.3			
University City	299	405	73.8			
Lincoln	186	376	49.5			
Morse	260	373	69.7			
Serra	236	364	64.8			
La Jolla	270	356	75.8			
Hoover	146	306	47.7			
Clairemont	176	264	66.7			
Mission Bay	159	269	59.1			
Madison	153	242	63.2			
School of Creative and Performing Arts	133	175	76.0			
San Diego International (IB)	102	115	88.7			
Twain	1	112	0.9			
San Diego LEADS	29	94	30.9			
Kearny Construction Technology	54	85	63.5			
Kearny Digital and Media Design	37	81	45.7			
Kearny International Business	36	82	43.9			
San Diego Business	16	76	21.1			
Kearny Science and Technology	39	64	60.9			
San Diego Science and Technology	14	63	22.2			
San Diego Multimedia, Visual, and Performing Arts	23	65	35.4			
Crawford Multimedia Visual Arts	4	58	6.9			
Crawford School of Community Health and Medical Practice	28	54	51.9			
San Diego School of Communication	9	38	23.7			
Crawford Law and Business	21	38	55.3			

TABLE C16 (continued)

High school	Number	Total	Percentage
Crawford Innovation and Design Academy	16	33	48.5
Mt. Everest Academy	12	20	60.0

TABLE C17
Average number of courses completed with a D or higher, for the entire sample and for high school graduates, by subject

	All stu	idents	Graduates		
Subject	Number required	Mean	SD	Mean	SD
Social studies (a)	4	3.1	1.5	3.9	0.5
English (b)	8	6.0	2.8	7.6	1.0
Math (c)	6	4.5	1.9	5.5	1.0
Science (d)	4	3.1	1.5	3.9	0.4
Foreign language (e)	4	2.6	1.7	3.4	1.2
VPA (f)	2	1.5	0.8	1.9	0.5
Elective (g)	2	1.7	0.7	2.0	0.2
UC a-g	30	22.5	9.7	28.2	3.3
Total Number		9,747		6,433	

TABLE C18 Number of subject areas completed with a D or higher

	All stu	dents	Graduates	
Number of completed subject areas	Number	Percentage	Number	Percentage
0	1,269	13.0	34	0.5
1	715	7.3	23	0.4
2	681	7.0	90	1.4
3	521	5.4	168	2.6
4	551	5.6	323	5.0
5	883	9.1	743	11.6
6	1,336	13.7	1,272	19.8
All a–g	3,791	38.9*	3,780	58.8*
Total Number	9,747		6,433	

<sup>\*</sup>Some students substituted one year of ESL to complete the English requirement.

## Appendix D: The Most Frequently Attended Postsecondary Institutions

This appendix shows the frequency, in descending order, of attendance at postsecondary institutions by graduates from the class of 2011, restricted to those who only attended one institution. We include this appendix because it speaks to the issue of which postsecondary institutions other than UC/CSU and community colleges San Diego's students attend. Some universities are likely to accept graduates who do not complete the a–g course sequence. Notably, all but three of the top 21 institutions (when ranked by number of students from the class of 2011 enrolling in them) below belong either to the California community college, the UC, or the CSU systems. There are three exceptions. The 15th most popular institution, Point Loma Nazarene University, is located in San Diego. The other two exceptions are Northern Arizona University and the University of Arizona.

TABLE D1
Frequency, in descending order, of attendance at postsecondary institutions by graduates from the class of 2011

Name	Frequency	Percentage	Cumulative	Cumulative
	-	_	frequency	percentage
San Diego Mesa College	885	21.63	885	21.63
San Diego City College	420	10.26	1,305	31.89
San Diego State University	420	10.26	1,725	42.16
Grossmont College	395	9.65	2,120	51.81
San Diego Miramar College	306	7.48	2,426	59.29
University of California–San Diego	93	2.27	2,519	61.56
University of California–Berkeley	71	1.74	2,590	63.29
University of California–Santa Barbara	68	1.66	2,658	64.96
Southwestern College	66	1.61	2,724	66.57
University of California–Santa Cruz	60	1.47	2,784	68.04
University of California–Los Angeles	56	1.37	2,840	69.40
California Polytechnic State University, San Luis Obispo	55	1.34	2,895	70.75
University of California–Irvine	55	1.34	2,950	72.09
San Francisco State University	44	1.08	2,994	73.17
Point Loma Nazarene University	36	0.88	3,030	74.05
Humboldt State University	30	0.73	3,060	74.78
University of California–Davis	29	0.71	3,089	75.49
Northern Arizona University	28	0.68	3,117	76.17
California State University-Chico	25	0.61	3,142	76.78
University of California–Riverside	25	0.61	3,167	77.39
University of Arizona	24	0.59	3,191	77.98
California State Polytechnic University, Pomona	22	0.54	3,213	78.52
California State University–Northridge	22	0.54	3,235	79.06
United Education Institute–San Diego	21	0.51	3,256	79.57
California State University–San Marcos	20	0.49	3,276	80.06
Cuyamaca College	20	0.49	3,296	80.55
Palomar College	20	0.49	3,316	81.04
San Jose State University	18	0.44	3,334	81.48
University of Oregon, Main Campus	18	0.44	3,352	81.92
California State University-Long Beach	15	0.37	3,367	82.28
California State University–Los Angeles	15	0.37	3,382	82.65
ITT Technical Institute	15	0.37	3,397	83.02
Sonoma State University	15	0.37	3,412	83.38
Miracosta College	14	0.34	3,426	83.72
University of San Diego	14	0.34	3,440	84.07
University of Southern California	14	0.34	3,454	84.41
Arizona State University	13	0.32	3,467	84.73

Name	Frequency	Percentage	Cumulative frequency	Cumulative percentage
California State University–Sacramento	13	0.32	3,480	85.04
University of Colorado at Boulder	13	0.32	3,493	85.36
California State University–Fullerton	12	0.29	3,505	85.65
Devry University-Pomona	12	0.29	3,517	85.95
University of California-Merced	11	0.27	3,528	86.22
California State University– Dominguez Hills	10	0.24	3,538	86.46
Santa Barbara City College	10	0.24	3,548	86.71
New York University	9	0.22	3,557	86.93
University of San Francisco	9	0.22	3,566	87.15
Santa Clara University	8	0.20	3,574	87.34
California Maritime Academy	7	0.17	3,581	87.51
California State University–Bakersfield	7	0.17	3,588	87.68
University of Nevada Las Vegas	7	0.17	3,595	87.85
California State University–Monterey Bay	6	0.15	3,601	88.00
Oregon State University	6	0.15	3,607	88.15
United Education Institute–Chula Vista	6	0.15	3,613	88.29
Brown University	5	0.12	3,618	88.42
California State University–Channel Islands	5	0.12	3,623	88.54
Chapman University–Orange	5	0.12	3,628	88.66
Iowa State University	5	0.12	3,633	88.78
Montana State University-Bozeman	5	0.12	3,638	88.91
Pomona College	5	0.12	3,643	89.03
Santa Monica College	5	0.12	3,648	89.15
University of Washington–Seattle	5	0.12	3,653	89.27
Ashford University	4	0.10	3,657	89.37
Bethune-Cookman University	4	0.10	3,661	89.47
California State University–Fresno	4	0.10	3,665	89.57
City College of San Francisco	4	0.10	3,669	89.66
Cornell University	4	0.10	3,673	89.76
Embry-Riddle Aeronautical University, Arizona	4	0.10	3,677	89.86
Harvard University	4	0.10	3,681	89.96
Loyola Marymount University	4	0.10	3,685	90.05
Michigan State University	4	0.10	3,689	90.15
Mount San Jacinto College	4	0.10	3,693	90.25
University of Nevada–Reno	4	0.10	3,697	90.35
University of Redlands	4	0.10	3,701	90.44
Academy of Art University	3	0.07	3,704	90.52
Boise State University	3	0.07	3,707	90.59
Boston University	3	0.07	3,710	90.66
California State University–East Bay	3	0.07	3,713	90.74
Clark Atlanta University	3	0.07	3,716	90.81
Colorado State University	3	0.07	3,719	90.88
Concordia University–Irvine	3	0.07	3,722	90.96
Fresno City College	3	0.07	3,725	91.03
George Washington University	3	0.07	3,728	91.10
Gordon College	3	0.07	3,731	91.18
Indiana University Bloomington	3	0.07	3,734	91.25
Johnson & Wales University	3	0.07	3,737	91.32
Los Angeles Trade Technical	3	0.07	3,740	91.40
Los Medanos College	3	0.07	3,743	91.47
Mills College	3	0.07	3,746	91.54
Musicians Institute	3	0.07	3,749	91.62
New Mexico State University–Main	3	0.07	3,752	91.69
Newschool of Architecture and Design	3	0.07	3,755	91.76
Pepperdine University	3	0.07	3,758	91.84
Pitzer College	3	0.07	3,761	91.04
Purdue University–West Lafayette	3	0.07	3,764	91.91
Reed College	3	0.07	3,767	92.06
Saddleback College	3	0.07	3,770	92.00
St Louis Community College	3	0.07	3,773	92.13

Name	Frequency	Percentage	Cumulative frequency	Cumulative percentage
Texas Southern University	3	0.07	3,776	92.28
Tidewater Community College	3	0.07	3,779	92.35
Tulane University	3	0.07	3,782	92.42
University of La Verne	3	0.07	3,785	92.50
University of Phoenix	3	0.07	3,788	92.57
University of the Pacific	3	0.07	3,791	92.64
Utah State University	3	0.07	3,794	92.72
Vanguard University of Southern Californa	3	0.07	3,797	92.79
Western New Mexico University	3	0.07	3,800	92.86
Alcorn State University	2	0.05	3,802	92.91
American River College Los Rios Community College District	2	0.05	3,804	92.96
Azusa Pacific University	2	0.05	3,806	93.01
Briar Cliff University	2	0.05	3,808	93.06
Brigham Young University–Idaho	2	0.05	3,810	93.11
Broward College	2	0.05	3,812	93.16
California Baptist University–Undergraduate	2	0.05	3,814	93.21
California Institute of Technology	2	0.05	3,816	93.26
California Lutheran University	2	0.05	3,818	93.30
Calvin College	2	0.05	3,820	93.35
Cedar Valley College–Dallas Community College District	2	0.05	3,822	93.40
Cochise College	2	0.05	3,824	93.45
College of Charleston	2	0.05	3,826	93.50
College of the Redwoods	2	0.05	3,828	93.55
Cypress College	2	0.05	3,830	93.60
Denison University	2	0.05	3,832	93.65
Fullerton College	2	0.05	3,834	93.70
Georgetown University	2	0.05	3,836	93.74
Golden West College	2	0.05	3,838	93.79
Huntington University	2	0.05	3,840	93.84
Lewis & Clark College of Arts & Sciences	2	0.05	3,842	93.89
Lynchburg College	2	0.05	3,844	93.94
Marguette University	2	0.05	3,846	93.99
Massachusetts Institute of Technology	2	0.05	3,848	94.04
Middle Tennessee State University	2	0.05	3,850	94.09
Missouri Valley College	2	0.05	3,852	94.13
Morehouse College	2	0.05	3,854	94.18
National University	2	0.05	3,856	94.23
Northeastern University	2	0.05	3,858	94.28
Occidental College	2	0.05	3,860	94.33
Olympic College	2	0.05	3,862	94.38
Prairie View A&M University	2	0.05	3,864	94.43
Rutgers–The State University of New Jersey	2	0.05	3,866	94.48
Salt Lake Community College	2	0.05	3,868	94.53
Scripps College	2	0.05	3,870	94.57
Spartan College of Aeronautics and Technology	2	0.05	3,872	94.62
Spelman College	2	0.05	3,874	94.67
St Johns University	2	0.05	3,876	94.72
St Mary's College of California	2	0.05	3,878	94.77
Stanford University	2	0.05	3,880	94.82
Texas Christian University	2	0.05	3,882	94.87
Texas Tech University, Lubbock	2	0.05	3,884	94.92
The Ohio State University	2	0.05	3,886	94.92
University of Alabama	2	0.05	3,888	95.01
University of Hawaii at Hilo	2	0.05	3,890	95.01
University of Hawaii at Manoa	2	0.05	3,892	95.06
University of Illinois at Urbana	2	0.05	3,894	95.11
		0.05	3,894	95.16
University of Maryland–College Park	2			
University of Michigan–Central Campus	2	0.05	3,898	95.26

Name	Frequency	Percentage	Cumulative frequency	Cumulative percentage
University of Nebraska–Lincoln	2	0.05	3,902	95.36
University of Pennsylvania	2	0.05	3,904	95.41
University of Puget Sound	2	0.05	3,906	95.45
University of Texas at Austin	2	0.05	3,908	95.50
Washington State University	2	0.05	3,910	95.55
Washington University	2	0.05	3,912	95.60
Whittier College	2	0.05	3,914	95.65
Yale University	2	0.05	3,916	95.70
Agnes Scott College	1	0.02	3,917	95.72
Alabama State University	1	0.02	3,918	95.75
Allan Hancock College	1	0.02	3,919	95.77
Arapahoe Community College	1	0.02	3,920	95.80
Argosy University–San Diego	1	0.02	3,921	95.82
Aurora University	1	0.02	3,922	95.85
Austin Community College	1	0.02	3,923	95.87
Black Hills State University	1	0.02	3,924	95.89
Boston College	1	0.02	3,925	95.92
Brandeis University	1	0.02	3,926	95.94
Brigham Young University	1	0.02	3,927	95.97
Brigham Young University-Idaho	1	0.02	3,928	95.99
Bristol Community College	1	0.02	3,929	96.02
Bryant University	1	0.02	3,930	96.04
California College of the Arts	1	0.02	3,931	96.07
California State University–Stanislaus	1	0.02	3,932	96.09
Carleton College	1	0.02	3,933	96.11
Central Arizona College	1	0.02	3,934	96.14
Central College	1	0.02	3,935	96.14
	1	0.02		
Centralia College	1		3,936	96.19
Cerritos College	· ·	0.02	3,937	96.21
Chaminade University of Honolulu	1	0.02	3,938	96.24
Claremont Mckenna College	1	0.02	3,939	96.26
Clark College	1	0.02	3,940	96.29
Colby College	1	0.02	3,941	96.31
College of Lake County	1	0.02	3,942	96.33
College of Mount St Joseph	1	0.02	3,943	96.36
College of the Desert, Coachella	1	0.02	3,944	96.38
College of the Siskiyous	1	0.02	3,945	96.41
Columbus State Community College	1	0.02	3,946	96.43
Concordia University–Portland	1	0.02	3,947	96.46
Cornell College	1	0.02	3,948	96.48
Cornish College of the Arts	1	0.02	3,949	96.51
Crafton Hills College	1	0.02	3,950	96.53
Cuesta College	1	0.02	3,951	96.55
Dartmouth College	1	0.02	3,952	96.58
De Anza College	1	0.02	3,953	96.60
Delaware State University	1	0.02	3,954	96.63
Delta State University	1	0.02	3,955	96.65
Depaul University	1	0.02	3,956	96.68
Des Moines Area Community College	1	0.02	3,957	96.70
Diablo Valley College	1	0.02	3,958	96.73
Dickinson College	1	0.02	3,959	96.75
Dordt College	1	0.02	3,960	96.77
Drexel University	1	0.02	3,961	96.80
Eastern New Mexico University–Roswell	1	0.02	3,962	96.82
Embry-Riddle Aeronautical University–Daytona, Florida	1	0.02	3,963	96.85
Estrella Mountain Community College	1	0.02	3,964	96.87
Everest College-Alhambra	1	0.02	3,965	96.90
Feather River Community College	1	0.02	3,966	96.90
Fordham University Framingham State University	1	0.02 0.02	3,967 3,968	96.95 96.97

Name	Frequency	Percentage	Cumulative frequency	Cumulative
Franklin and Marshall College	1	0.02	3,969	96.99
Franklin W. Olin College of Engineering	1	0.02	3,970	97.02
Gannon University	1	0.02	3,971	97.04
Georgia Gwinnett College	1	0.02	3,972	97.07
Georgia Military College	1	0.02	3,973	97.09
Georgia State University	1	0.02	3,974	97.12
Glendale Community College	1	0.02	3,975	97.14
Green River Community College	1	0.02	3,976	97.17
Hampton University	1	0.02	3,977	97.19
Harvey Mudd College	1	0.02	3,978	97.21
Hendrix College	1	0.02	3,979	97.24
Holy Names University	1	0.02	3,980	97.26
Howard University	1	0.02	3,981	97.29
Irvine Valley College	1	0.02	3,982	97.31
Jackson State University	1	0.02	3,983	97.34
James Madison University	1	0.02	3,984	97.36
John Carroll University	1	0.02	3,985	97.39
Kapiolani Community College	1	0.02	3,986	97.41
Kauai Community College	1	0.02	3,987	97.43
Kenyon College	1	0.02	3,988	97.46
La Sierra University	1	0.02	3,989	97.48
Latter-Day Saints Business College	1	0.02	3,990	97.51
Liberty University	1	0.02	3,991	97.53
Lone Star College System District	1	0.02	3,992	97.56
Los Angeles Harbor College	1	0.02	3,993	97.58
Los Angeles Southwest College	1	0.02	3,994	97.61
Louisiana State University	1	0.02	3,995	97.63
Macalester College	1	0.02	3,996	97.65
Macon State College	1	0.02	3,997	97.68
Maryland Institute, College of Art	1	0.02	3,998	97.70
Marymount College-Palos Verdes	1	0.02	3,999	97.73
Maryville University	1	0.02	4,000	97.75
Massasoit Community College	1	0.02	4,001	97.78
Mayville State University	1	0.02	4,002	97.80
Merced College	1	0.02	4,003	97.83
Mesa State College	1	0.02	4,004	97.85
Metropolitan State College of Denver	1	0.02	4,005	97.87
Monterey Peninsula College	1	0.02	4,006	97.90
Moorpark College	1	0.02	4,007	97.92
Mount Holyoke College	1	0.02	4,008	97.95
Mount San Antonio College	1	0.02	4,009	97.97
Navarro College	1	0.02	4,010	98.00
New Mexico Military Institute	1	0.02	4,011	98.02
Niagara University	1	0.02	4,012	98.04
North Carolina State University	1	0.02	4,013	98.07
Oberlin College	1	0.02	4,014	98.09
Otis College of Art and Design	1	0.02	4,015	98.12
Ottawa University-Ottawa	1	0.02	4,016	98.14
Pace University	1	0.02	4,017	98.17
Pacific University	1	0.02	4,018	98.19
Pasadena City College	1	0.02	4,019	98.22
Peninsula College	1	0.02	4,020	98.24
Pennsylvania State University	1	0.02	4,021	98.26
Pfeiffer University	1	0.02	4,022	98.29
Portland Community College	1	0.02	4,023	98.31
Portland State University	1	0.02	4,023	98.34
Pratt Institute	1	0.02	4,025	98.36
Princeton University	1	0.02	4,025	98.39
Providence College	1	0.02	4,026	98.41
Reedley College	1	0.02	4,027	98.44

TABLE D1 (continued)

Name	Frequency	Percentage	Cumulative frequency	Cumulative
Rhode Island School of Design	1	0.02	4,029	98.46
Rice University	1	0.02	4,030	98.48
Riverside Community College	1	0.02	4,031	98.51
Saint Joseph's College	1	0.02	4,032	98.53
San Jacinto College	1	0.02	4,033	98.56
Seattle Pacific University	1	0.02	4,034	98.58
Seward County Community College	1	0.02	4,035	98.61
Skagit Valley College	1	0.02	4,036	98.63
Skidmore College	1	0.02	4,037	98.66
South Dakota School of Mines	1	0.02	4,038	98.68
Southern Methodist University	1	0.02	4,039	98.70
Southern Utah University	1	0.02	4,040	98.73
Southwestern Oklahoma State University	1	0.02	4,041	98.75
St Edwards University	1	0.02	4,042	98.78
St Marys College of Maryland	1	0.02	4,043	98.80
St Olaf College	1	0.02	4,044	98.83
St Petersburg College	1	0.02	4,045	98.85
Stephen F. Austin State University	1	0.02	4,046	98.88
Suny University at Buffalo	1	0.02	4,047	98.90
Syracuse University	1	0.02	4,047	98.92
Tennessee State University	1	0.02	4,046	98.95
	1	0.02	4,049	
Texas A&M University	1			98.97
Texas State University–San Marcos		0.02	4,051	99.00
The New School	1	0.02	4,052	99.02
The University of Memphis	1	0.02	4,053	99.05
Trident Technical College	1	0.02	4,054	99.07
Tufts University	1	0.02	4,055	99.10
Tunxis Community College	1	0.02	4,056	99.12
Tuskegee University	1	0.02	4,057	99.14
United Education Institute–Ontario	1	0.02	4,058	99.17
United Education Institute–San Marcos	1	0.02	4,059	99.19
University of Central Florida	1	0.02	4,060	99.22
University of Cincinnati	1	0.02	4,061	99.24
University of Colorado at Colorado Springs	1	0.02	4,062	99.27
University of Denver–Colorado	1	0.02	4,063	99.29
University of Iowa	1	0.02	4,064	99.32
University of Maine, Orono	1	0.02	4,065	99.34
University of Massachusetts at Lowell	1	0.02	4,066	99.36
University of Miami	1	0.02	4,067	99.39
University of Mississippi	1	0.02	4,068	99.41
University of North Carolina–Charlotte	1	0.02	4,069	99.44
University of Northern Colorado	1	0.02	4,070	99.46
University of Oklahoma	1	0.02	4,071	99.49
University of Pittsburgh	1	0.02	4,072	99.51
University of Rhode Island	1	0.02	4,073	99.54
University of South Carolina–Aiken	1	0.02	4,074	99.56
University of South Florida	1	0.02	4,075	99.58
University of Texas–Brownsville	1	0.02	4,076	99.61
University of the Arts	1	0.02	4,077	99.63
Vanderbilt University	1	0.02	4,078	99.66
Wake Technical Community College	1	0.02	4,079	99.68
Waldorf College	1	0.02	4,080	99.71
Wentworth Institute of Technology	1	0.02	4,081	99.73
Wesleyan University	1	0.02	4,082	99.76
West Los Angeles College	1	0.02	4,083	99.78
Western Washington University	1	0.02	4,084	99.80
Westminster College of Salt Lake City	1	0.02	4,085	99.83
Westmont College	1	0.02	4,086	99.85
Whitworth University	1	0.02	4,087	99.88
Willamette University	1	0.02	4,088	99.90

Name	Frequency	Percentage	Cumulative frequency	Cumulative percentage
Williams College	1	0.02	4,089	99.93
Wisconsin Lutheran College	1	0.02	4,090	99.95
Wyotech–City of Industry	1	0.02	4,091	99.98
Xavier University of Louisiana	1	0.02	4,092	100.00



The Public Policy Institute of California is dedicated to informing and improving public policy in California through independent, objective, nonpartisan research on major economic, social, and political issues. The institute's goal is to raise public awareness and to give elected representatives and other decisionmakers a more informed basis for developing policies and programs.

The institute's research focuses on the underlying forces shaping California's future, cutting across a wide range of public policy concerns, including economic development, education, environment and resources, governance, population, public finance, and social and health policy.

PPIC is a private operating foundation. It does not take or support positions on any ballot measures or on any local, state, or federal legislation, nor does it endorse, support, or oppose any political parties or candidates for public office. PPIC was established in 1994 with an endowment from William R. Hewlett.

Mark Baldassare is President and Chief Executive Officer of PPIC. Gary K. Hart is Chair of the Board of Directors.

Short sections of text, not to exceed three paragraphs, may be quoted without written permission provided that full attribution is given to the source.

Research publications reflect the views of the authors and do not necessarily reflect the views of the staff, officers, or Board of Directors of the Public Policy Institute of California.

Copyright © 2013 Public Policy Institute of California All rights reserved.
San Francisco, CA

PUBLIC POLICY INSTITUTE OF CALIFORNIA 500 Washington Street, Suite 600 San Francisco, California 94111 phone: 415.291.4400 fax: 415.291.4401

www.ppic.org

PPIC SACRAMENTO CENTER Senator Office Building 1121 L Street, Suite 801 Sacramento, California 95814 phone: 916.440.1120

fax: 916.440.1121