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## THE GEOGRAPHICAL DISTRIBUTION OF THE STUDENT BODY AT A NUMBER OF UNIVERSITIES AND COLLEGES

THE accompanying table explains the geographical distribution of the student body of twelve American universities and four New England colleges and one Pennsylvania college for the academic year 1906-7, the summer session students being in every instance omitted. *Brown, Ohio State and Virginia* have been added to the table, while the *Lafayette* figures are omitted this year. The *University of California* figures include only the students in the academic colleges and are exclusive of the 174 students in the professional schools in San Francisco. In making comparisons with 1905-6, it should also be noted that the *California* figures in last year's table were those of 1904-5.

Comparing the attendance by divisions of the six eastern universities (*Columbia, Cornell, Harvard, Pennsylvania, Princeton, Yale*) with the corresponding figures for the same universities included in a similar table published in *SCIENCE*, N. S., Vol. XXIV., No. 606 (August 10, 1906), pp. 166-173, we note in the first place that there has been a gain for these universities, taken as a whole, in every division, the largest increase in the actual number of students, leaving the North Atlantic division—in which all of these six universities are located—out of consideration, having been recorded in the North Central division, where there has been an increase of 117 students, followed by foreign countries

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of *SCIENCE*, Garrison-on-Hudson, N. Y.

## RESIDENCES OF STUDENTS (A) United States

1906-1907	Amherst	Brown	California	Columbia	Cornell	Dartmouth	Harvard (Incl. Radcliffe)	Illinois	Lehigh	Michigan	Ohio State	Pennsylvania	Princeton	Virginia	Williams	Wisconsin	Yale
<b>North Atlantic Division.</b>	<b>381</b>	<b>867</b>	<b>9</b>	<b>3306</b>	<b>2626</b>	<b>970</b>	<b>3593</b>	<b>35</b>	<b>536</b>	<b>505</b>	<b>64</b>	<b>2960</b>	<b>948</b>	<b>43</b>	<b>378</b>	<b>48</b>	<b>2309</b>
Connecticut.....	17	27		62	47	19	48	2	6	10	3	35	16	2	22		1107
Maine.....		10		20	15	44	116		1	4	1	13	1		5	1	19
Massachusetts.....	170	189	3	79	87	500	2456	8	15	15	7	69	27	1	95	4	184
New Hampshire.....		41		11	4	233	81		1	5	3	8	2		2		14
New Jersey.....	15	19		388	157	7	69	4	55	15	2	226	279	8	36	7	107
New York.....	137	59	5	2607	1986	76	524	14	54	277	22	136	288	13	192	23	639
Pennsylvania.....	27	16	1	112	314	8	181	5	403	165	25	2457	330	17	15	9	196
Rhode Island.....	7	488		10	7	10	93	1	1	7		10	4	2	2		27
Vermont.....	8	18		17	9	73	25	1		7	1	6	1		9		16
<b>South Atlantic Division.</b>	<b>9</b>	<b>10</b>	<b>3</b>	<b>113</b>	<b>176</b>	<b>8</b>	<b>128</b>	<b>17</b>	<b>106</b>	<b>47</b>	<b>11</b>	<b>165</b>	<b>105</b>	<b>537</b>	<b>3</b>	<b>19</b>	<b>102</b>
Delaware.....		2		2	9	1	5		7			40	6		5		15
District of Columbia.....	4	3	1	4	48	6	37	5	22	13	1	29	15	11	2	4	19
Florida.....							14	1		6		5	4		10		9
Georgia.....			1	23	7		14	1		4		13	2	13		6	12
Maryland.....	4	2		16	53		23	3	54	5	4	34	49	31	1	6	14
North Carolina.....				21	12		10	2	1	2		12	5	15			10
South Carolina.....			1	15	4	1	12	1		2		5	6	15		1	4
Virginia.....		1		17	35		12	1	14	6	1	18	12	412			11
West Virginia.....	1	1		8	8		11	3	8	9	5	9	6	22		2	7
<b>South Central Division.</b>	<b>6</b>	<b>9</b>	<b>5</b>	<b>83</b>	<b>93</b>	<b>5</b>	<b>102</b>	<b>48</b>	<b>8</b>	<b>68</b>	<b>22</b>	<b>61</b>	<b>55</b>	<b>156</b>	<b>3</b>	<b>22</b>	<b>79</b>
Alabama.....	1			19	13		13	4	1			18	5	30			2
Arkansas.....				2	2		6	7		6		4	4	11		3	1
Indian Territory.....							3	4		3							
Kentucky.....	2	3		17	15	3	33	11	3	23	8	15	20	38	2	8	25
Louisiana.....		1	1	8	13	1	10	2		2	1		1	10		1	8
Mississippi.....		1		4	13		2	2	1	2		4	5	20		2	3
Oklahoma.....		1		14	13		8	7		13							2
Tennessee.....	1	2		12	21	1	16	2	2	4	4	6	9	34		1	17
Texas.....	2	2	4	12	21	1	14	9	1	11	8	14	11	13	1	5	20
<b>North Central Division.</b>	<b>62</b>	<b>18</b>	<b>27</b>	<b>329</b>	<b>377</b>	<b>122</b>	<b>522</b>	<b>3597</b>	<b>13</b>	<b>3436</b>	<b>1908</b>	<b>176</b>	<b>184</b>	<b>33</b>	<b>86</b>	<b>3486</b>	<b>577</b>
Illinois.....	16	4	5	38	102	67	116	3203	3	296	5	15	48	3	35	214	143
Indiana.....	1	2	3	41	31	5	37	65		173	17	13	18	3	6	33	29
Iowa.....	5	3	7	25	20	7	40	78	1	70	4	20	12	7	5	81	30
Kansas.....		1	2	14	10	2	15	24	1	27		14	3	1	1	9	17
Michigan.....	6			28	30	3	24	29	3	2358	3	6	17	2	3	25	36
Minnesota.....	2		2	23	11	2	35	19	1	19	3	11	9	1	1	31	53
Missouri.....	15	4	1	29	20	7	59	40	1	70	1	16	15	14	2	23	68
Nebraska.....	2			12	7	6	11	13	2	20		1			2	21	17
North Dakota.....		1		7	2	3	2	3	1	3			3			10	1
Ohio.....	10		4	80	128	17	141	33	1	342	1870	69	42	7	14	29	159
South Dakota.....				30	16	1	7	15		18		7	2			16	7
Wisconsin.....	5	4	1	30	16	1	26	75		40	4	10	7	2	9	2994	22
<b>Western Division.</b>	<b>9</b>	<b>1</b>	<b>2655</b>	<b>105</b>	<b>86</b>	<b>20</b>	<b>126</b>	<b>53</b>	<b>3</b>	<b>155</b>	<b>6</b>	<b>40</b>	<b>36</b>	<b>10</b>	<b>6</b>	<b>37</b>	<b>99</b>
Arizona.....				2	21	5	55	8		27	1	2	8	4	2		32
California.....	2		2592	29	22	12	27	13		40	3	12	15	1	2	8	31
Colorado.....	3			8	25	1	1	2		4		2				2	1
Idaho.....				3	1		5	4		32		1	5	3		9	7
Montana.....				1	6		2	1				1					1
Nevada.....				3	2		2	3		6						4	
New Mexico.....				1	1		10	3	1	9	1	1	2	1	1	2	10
Oregon.....	3	1	30	4	14		6	6		11	1	10	4			1	4
Utah.....			1	13	9		16	13	1	13		11	1			11	9
Washington.....	1		15	10	2		1			9		1	1				1
Wyoming.....				2	3												
<b>Insular and Non-Con-</b>																	
<b>tiguous Territories.</b>				<b>13</b>	<b>7</b>	<b>22</b>	<b>13</b>	<b>16</b>	<b>3</b>	<b>13</b>	<b>10</b>	<b>7</b>	<b>1</b>	<b>1</b>		<b>11</b>	<b>10</b>
Alaska.....				3			9			2		2					5
Hawaiian Islands.....				6	4	3				5		2				10	4
Philippine Islands.....				4	13		1	16	3	5		2				1	1
Porto Rico.....				3	6		3			6		3					
<b>Total.</b>	<b>467</b>	<b>905</b>	<b>2712</b>	<b>3943</b>	<b>3380</b>	<b>1125</b>	<b>4484</b>	<b>3766</b>	<b>669</b>	<b>4224</b>	<b>2021</b>	<b>3409</b>	<b>1329</b>	<b>780</b>	<b>476</b>	<b>3623</b>	<b>3176</b>

with an increase of 64 students, and the South Atlantic division with an increase of 42 students. In the South Central and Western states and in the insular possessions these eastern universities have made only a slight gain. The total increase in divisions outside of the North Atlantic

this year is larger than it was last (189 against 91), while there has been a small decrease in the gain of students from foreign countries (64 against 87). The figures show conclusively that the six eastern universities mentioned, taken as a whole, are more than holding their own in

## (B) Foreign Countries

1906-1907	Amherst	Brown	California	Columbia	Cornell	Dartmouth	Harvard (Incl. Radcliffe)	Illinois	Lehigh	Michigan	Ohio State	Pennsylvania	Princeton	Virginia	Williams	Wisconsin	Yale
<b>North America.....</b>	<b>1</b>	<b>3</b>	<b>6</b>	<b>46</b>	<b>47</b>	<b>3</b>	<b>54</b>	<b>8</b>	<b>17</b>	<b>24</b>	<b>6</b>	<b>51</b>	<b>6</b>			<b>17</b>	<b>25</b>
Canada.....	1	1	4	30	23	1	43	4	1	18	2	15	3			8	23
Central America.....				5	4		2					16				1	
Cuba.....		1	2	8	11		1		10		2	9	2			1	
Mexico.....				2	9		5	4	3	5	1	5	1			6	1
West Indies.....		1		1			3		3	1	1	6				1	1
<b>South America.....</b>			<b>6</b>	<b>13</b>	<b>27</b>		<b>4</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>13</b>	<b>20</b>		<b>3</b>		<b>6</b>	<b>2</b>
Argentine Republic.....			3	1	14		3	3			13	3				6	
Brazil.....			1	1	5						13	8		2			1
Chili.....			1	2								5					1
Colombia.....				3			1	1	2	2		1					1
Ecuador.....			1	4	2				1			2					
Peru.....				2	5							1					
Uruguay.....				1								1		1			
<b>Europe.....</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>39</b>	<b>23</b>		<b>33</b>	<b>6</b>		<b>9</b>	<b>9</b>	<b>45</b>	<b>6</b>			<b>5</b>	<b>18</b>
Austria-Hungary.....				1			1					3					
Belgium.....				1													
Bulgaria.....				1	1		1			1	1						
Denmark.....																	
France.....	1	1		4	2		4					1					1
Germany.....			2	8	2		3			5	1	8					3
Great Britain and Ireland..			2	7	6		14			1		8		5		1	1
Greece.....				2													7
Holland.....			1	1	2			1				5				2	
Iceland.....																1	
Italy.....				3			3	1				1				1	1
Norway.....				1	1			2									1
Portugal.....							1					2				1	
Rumania.....																	
Russia.....				5	4		1	1			2	6					
Spain.....				1				1			2	1					
Sweden.....				1	2							2					
Switzerland.....					2		2					1					
Turkey.....				3	2		3										
<b>Asia.....</b>	<b>6</b>	<b>6</b>	<b>27</b>	<b>44</b>	<b>36</b>	<b>1</b>	<b>35</b>	<b>7</b>	<b>2</b>	<b>21</b>	<b>8</b>	<b>22</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>8</b>	<b>38</b>
Burmah.....										1							
Ceylon.....																	
China.....		5	15	9	16		20		1	2	1	3	1	1			10
Corea.....							3										
India.....	2	1	6	5	10		1	4	1	5		1					1
Japan.....	4		3	27	8		10	2		9	3	12	5		3	8	22
Persia.....				1													
Siam.....			3														
Turkey (in Asia).....				2	2	1	1	1		4	4	2		1			5
<b>Africa.....</b>			<b>1</b>	<b>2</b>	<b>1</b>		<b>4</b>			<b>1</b>					<b>1</b>		<b>2</b>
Egypt.....				1													
South Africa.....			1	1	1		4			1					1		2
<b>Australasia.....</b>			<b>1</b>	<b>2</b>	<b>3</b>		<b>3</b>			<b>1</b>	<b>1</b>	<b>32</b>					<b>2</b>
Australia.....			1	2	3						1	22					2
New Zealand.....							3			1		10					2
Total (Foreign Countries)...	8	10	46	146	137	4	133	25	22	58	37	170	18	5	4	36	87
Total (United States).....	467	905	2712	3943	3380	1125	4484	3766	669	4224	2021	3409	1329	780	476	3623	3176
<b>Grand Total.....</b>	<b>475</b>	<b>915</b>	<b>2758</b>	<b>4089</b>	<b>3517</b>	<b>1129</b>	<b>4617</b>	<b>3791</b>	<b>691</b>	<b>4282</b>	<b>2058</b>	<b>3579</b>	<b>1347</b>	<b>785</b>	<b>480</b>	<b>3659</b>	<b>3263</b>

sections outside of the North Atlantic, this being especially true of the North Central division. Calculated on a percentage basis, the total gain of the six universities in the North Atlantic division during the past year amounted to 3.51 per cent., as against a gain of 5.73 per cent. outside of the division mentioned. In the South Atlantic division all of these institutions show a gain, with the exception of *Cornell*; in the South Central states gains by *Columbia*,

*Cornell* and *Harvard* more than compensate for the losses of *Pennsylvania*, *Princeton* and *Yale*; in the North Central division all of them with the exception of *Cornell* and *Princeton* show substantial gains; in the western states *Columbia* alone has suffered a loss; in the insular territories the registration has undergone no change worthy of mention in any of the institutions, while in foreign countries *Columbia* and *Princeton* show a slight de-

crease. Comparing this year's figures with those of two years ago, we observe that the most substantial gains have been made by *Columbia* (67), *Pennsylvania* (37) and *Yale* (71) in the North Central division, by *Yale* (21) in the Western division, and by *Columbia* (29), *Cornell* (37), *Harvard* (39) and *Pennsylvania* (44) in foreign countries. At *Columbia* the attendance from outside of the North Atlantic states has increased from 15.07 per cent. to 19.15 per cent. during the last five years.

Taking the universities in the accompanying table by divisions, we find that *Harvard* and *Columbia* have the largest representation in the North Atlantic division, *Pennsylvania*, *Cornell*, *Yale* and *Princeton* following in the order named. *Michigan's* representation has increased from 394 to 505 in two years, while the other western universities—*California*, *Illinois*, *Ohio* and *Wisconsin*—and the *University of Virginia* attract only a few students from this section of the country. *Harvard* continues to lead in all of the New England states, with the exception of Connecticut, where *Yale* naturally has the largest following. *Columbia* and *Cornell*, as we should expect, have the largest representation in New York state, *Yale*, *Harvard*, *Princeton* and *Michigan* following in the order named, as they have during the past two years. *Michigan's* increase in this state—from 195 to 277 in two years—is noteworthy. In New Jersey there has also been no change during the past two years, the order still being *Columbia*, *Princeton*, *Pennsylvania*, *Cornell*, *Yale*, *Harvard*. The *University of Pennsylvania* naturally leads in its own state, followed by *Princeton*, *Cornell*, *Yale*, *Harvard* and *Columbia*, as heretofore.

Examining the attendance of the colleges from these states, we note that the order for the entire division is *Dartmouth*, *Brown*,

*Lehigh*, *Amherst*, *Williams*. *Dartmouth* continues to lead the colleges in Maine and Massachusetts—*Harvard* being the only one of the universities having a larger following in these states than the New England college in question—as it does in New Hampshire and Vermont. *Brown* and *Harvard* are the only institutions that attract students from Rhode Island in any considerable number. In Connecticut the order is *Brown*, *Williams*, *Dartmouth*, *Amherst*, all of the eastern universities, except *Princeton*, having a larger representation in this state than any of the New England colleges included in the table. *Dartmouth*, *Lehigh* and *Williams* show an increase in their representation from the North Atlantic states, while *Amherst* shows a slight decrease. In New York the order for the colleges is *Williams*, *Amherst*, *Dartmouth*, *Brown*, *Lehigh*, and in New Jersey *Lehigh*, *Williams*, *Brown*, *Amherst*, *Dartmouth*. Of the four New England colleges here included, 36 per cent. of the students of *Amherst*, as against 43 per cent. last year, have their permanent home in Massachusetts; 21 per cent. of *Dartmouth's* student body, as against 24 per cent., come from New Hampshire (27 per cent. as against 32 per cent. from New Hampshire and Vermont), and 20 per cent., as against 21 per cent., of the student enrolment of *Williams* hail from Massachusetts. In other words, each of these three New England colleges shows an increase in the proportion of students coming from without the borders of its own state. *Lehigh* shows a decrease from 60 per cent. to 58 per cent. in the number of students hailing from Pennsylvania, while *Brown* draws 53 per cent. of its student body from Rhode Island. The table furthermore shows that *Dartmouth* attracts more students from Massachusetts than from all of the other states in the North Atlantic division combined, Wil-

*liams* draws more from New York than from Massachusetts, while *Princeton* draws more from Pennsylvania and more from New York than from New Jersey.

Of the eastern universities, *Pennsylvania* continues to have the largest percentage of enrolment from its own state, namely, 69 per cent., as against 67 per cent. last year; of *Columbia's* student body 64 per cent. come from New York state, as against 66 per cent.; *Cornell's* percentage of New York students continues at 56 per cent.; of *Harvard's* students 53 per cent., as against 54 per cent., are residents of Massachusetts; of *Yale's* students 34 per cent., as against 33 per cent., have their permanent residence in Connecticut, and finally, of *Princeton's* students only 21 per cent., as against 20 per cent., are residents of the state of New Jersey. The only institutions of this group which exhibit a gain in the percentage of students from outside their own state are therefore *Columbia* (2 per cent.) and *Harvard* (1 per cent.).

Coming to the South Atlantic division and taking into consideration only the six eastern universities, we note that *Harvard's* registration from this section now exceeds that of *Columbia*, the order this year being *Cornell*, *Pennsylvania*, *Harvard*, *Columbia*, *Princeton*, *Yale*. The *University of Virginia* naturally has the largest following in this section; *Michigan* is the only one of the western universities represented in the table to make a fair showing in these states, while *Lehigh* is the only one of the colleges with a good representation from this division, its main strength lying in Maryland and the District of Columbia. *Lehigh*, in fact, has a larger following in this section than either *Princeton*, *Yale* or *Michigan*. So far as the individual states are concerned, *Pennsylvania* leads in Delaware, *Cornell* in the District of Columbia, *Virginia* in Florida, *Columbia* in Georgia,

North Carolina and South Carolina (with *Virginia*), *Lehigh* in Maryland, and *Virginia* in its own state (with *Cornell* second) and in *West Virginia*. Leaving the state of Virginia out of consideration, both *Cornell* and *Pennsylvania* have a larger clientele in the South Atlantic division than *Virginia*.

In the South Central division *Virginia* heads the list, followed by *Harvard* (102, as against 80 two years ago), *Cornell* (93-76), *Columbia* (83-72), *Yale* (79-80), *Michigan* (68-64), *Pennsylvania* (61-44), *Princeton* (55-72) and Illinois (48-47). *Wisconsin's* representation from this section has increased from 8 to 22 in one year, while *Lehigh's* has dropped from 15 to 8. The New England colleges and *California* have only a small following in the states in question. The above figures show that *Princeton's* clientele in this division has fallen off during the past two years, while *Yale's* has remained stationary. The largest representation in the individual states is found at the following universities: Alabama—*Virginia*, *Columbia*, *Pennsylvania*; Arkansas—*Virginia*, *Illinois*; Indian Territory—*Illinois*; Kentucky—*Virginia*, *Harvard*, *Yale*; Louisiana—*Harvard* and *Virginia*; Mississippi—*Virginia*, *Cornell*, *Columbia*; Oklahoma—*Michigan*, *Harvard*; Tennessee—*Virginia*, *Yale*, *Harvard*; and Texas—*Cornell*, *Yale*, *Harvard* and *Pennsylvania*. Kentucky continues to send by far the largest delegations to the institutions mentioned in the list, followed by Texas, Tennessee and Alabama.

In the North Central division the four universities of that section, *Illinois*, *Wisconsin*, *Michigan* and *Ohio*, naturally have the largest clientele, standing in the order named; *Michigan* was at the head of the list last year. Of these four institutions *Michigan* draws the largest percentage of students from outside of its own state, 55

per cent. of its enrolment hailing from Michigan, the corresponding figures for *Wisconsin*, *Illinois* and *Ohio* being 82 per cent., 84 per cent. and 91 per cent., respectively. The clientele of the three middle western state universities last mentioned is, therefore, much more local in character than that of any of the eastern institutions comprised in the table, whereas *Michigan* attracts a larger percentage of students from outside of its own state than do *Pennsylvania*, *Columbia*, *Cornell* or *Lehigh*. Of the eastern universities *Yale* still has the largest clientele in this section of the country, followed by *Harvard*, *Cornell*, *Columbia*, *Princeton* and *Pennsylvania*, as last year. The largest gains in individual states (15 or over) during the past two years have been made by *Columbia* in *Wisconsin*, by *Harvard* in *Missouri*, by *Pennsylvania* in *Ohio*, and by *Yale* in *Ohio*, the greatest loss being that of *Harvard* in the state last mentioned. *Columbia's* representation in this group of states has grown from 262 to 329 in two years, *Pennsylvania's* from 139 to 176, *Yale's* from 506 to 577, while *Cornell's* has dropped from 381 to 377, *Harvard's* from 526 to 522 and *Princeton's* from 209 to 184. Of the New England colleges *Dartmouth* has the largest following in the North Central division, with *Williams* second and *Amherst* third, *Brown's* representation being small. The representation of *Amherst* in these states has grown from 43 to 62 during the past year, that of *Dartmouth* from 91 to 122, while that of *Williams* has remained stationary at 86. *Lehigh* exhibits an increase from 6 to 13. *California* and *Virginia* have a smaller following in this division than any of the eastern universities or colleges, with the exception of *Brown* and *Lehigh*. Leaving the *University of Illinois* out of consideration, *Michigan* has the largest following in *Illinois*, followed by *Wisconsin*,

*Yale*, *Harvard*, *Cornell*, each of which has over one hundred students from this state. *Michigan* also leads in *Indiana*, followed by *Illinois*, *Columbia*, *Harvard*, *Wisconsin*. In *Iowa* the order is *Wisconsin*, *Illinois*, *Michigan*, *Harvard*, *Yale*, *Columbia*; in *Kansas*—*Michigan*, *Illinois*, *Yale*, *Harvard*; in *Michigan* (leaving the state university out of consideration)—*Yale*, *Cornell*, *Illinois*, *Columbia*, *Wisconsin*, *Harvard*; in *Minnesota*—*Yale*, *Harvard*, *Wisconsin*, *Columbia*, *Michigan*; in *Missouri*—*Michigan*, *Yale*, *Harvard*, *Illinois*, *Columbia*; in *Nebraska*—*Wisconsin*, *Michigan*, *Yale*, *Illinois*, *Columbia*; in *North Dakota*—*Wisconsin*, *Columbia*; in *Ohio* (leaving the state university out of consideration)—*Michigan*, *Yale*, *Harvard*, *Cornell*, *Columbia*; in *South Dakota*—*Michigan*, *Wisconsin*, *Illinois*; and in *Wisconsin* (leaving the state university out of consideration)—*Illinois*, *Michigan*, *Columbia*, *Harvard*, *Yale*. The main strength of *Amherst*, *Dartmouth* and *Williams* in this division lies in the state of *Illinois*. Excluding in each case the respective state university, the state of *Illinois* is represented by 1,110 students at the institutions mentioned in the list, *Ohio* by 1,076, *Wisconsin* by 252 and *Michigan* by 215, i. e., 63 per cent. of the state of *Ohio's* representatives at all of the institutions included in the table are enrolled at the state university, while the percentage for *Illinois* is 74 per cent. and for *Michigan* and *Wisconsin* it is 92 per cent., as last year.

In the western division (leaving *California* out of consideration) *Michigan* continues in the lead, with *Harvard* and *Columbia*, each of which attracts over one hundred students from this section, following; then come *Yale*, *Cornell*, *Illinois*, *Pennsylvania*, *Wisconsin*, *Princeton*, the order being identical with that of last year, with the exception of *Wisconsin*, which has passed *Prince-*

ton. The remaining institutions attract only a few students from this section of the country, with the exception of *Dartmouth*, which continues to draw a fair delegation from Colorado. *Michigan* has grown from 134 to 155 in two years; *Harvard* has remained stationary at 126; *Columbia* has dropped from 111 to 105; *Yale* has grown from 78 to 99; *Cornell* from 76 to 86; *Illinois* from 41 to 53; *Pennsylvania* from 22 to 40; while *Princeton* has dropped from 41 to 36. *Michigan* leads in Arizona, Idaho, New Mexico and Wyoming, although the representation from each of these states is quite small; in California (leaving the state university out of consideration) *Harvard* continues to lead, with *Yale*, *Columbia* and *Michigan* following; in Colorado the order is *Michigan*, *Yale*, *Harvard*, *Columbia*; in Montana, *Michigan*, *Columbia*, *Wisconsin*; *California* leads in Nevada; in Oregon the order is *California*, *Cornell*, *Harvard* and *Yale*; in Utah—*Columbia*, *Michigan*, *Pennsylvania*; and in Washington—*Harvard*, *California*, *Illinois* and *Michigan*. Of the states in the Western division, Colorado and California continue to send by far the largest delegations to the eastern institutions in the list. California sent 164 students to the institutions outside of its own state represented in the tables of 1906 and 1907 in the former year, as against 191 in the latter, showing that the San Francisco disaster did not seriously affect the attendance of California students at institutions in the east and middle west. It should be pointed out again in this connection that the figures for most of the state universities, and this applies particularly to the *University of California*, are not absolutely reliable, inasmuch as students frequently claim the state in which the university is located as their permanent residence (although in fact it is only a temporary one), in order to be exempt

from tuition fees. In addition a tendency exists at all of the institutions to give the place in which the college or university is located as the home address.

*Cornell* continues to lead in the number of students from the insular possessions, followed by *Illinois*. Alaska, which had a solitary representative in Princeton in 1905 and none whatever in 1906, has three representatives in California this year. *Harvard* leads in the Hawaiian Islands, *Illinois* in the Philippine Islands, and *Cornell* and *Michigan* in Porto Rico. There are less students from the Hawaiian Islands at the institutions represented in both tables this year than there were last. The delegation from the Philippine Islands has increased 25 per cent., while that from Porto Rico has remained stationary.

The total number of students from foreign countries in attendance at the institutions represented in the accompanying table as well as in that of last year has grown from 792 to 897, a growth of no less than 13 per cent., to which the various continents contributed as follows: North America's representation has grown from 286 to 305; South America's from 62 to 87; Europe's has dropped from 211 to 190; Africa's from 15 to 12; Australasia's from 47 to 44, while Asia shows the largest gain—one from 171 to 256. *Pennsylvania* has the largest foreign clientele this year, followed by *Columbia*, *Cornell*, *Harvard*, each of which attracts more than one hundred foreigners. Of the western institutions, *Michigan* continues to have the largest foreign clientele, followed by *California*, *Ohio*, *Wisconsin*, *Illinois*. *Virginia* and the New England colleges attract only a few students resident in foreign countries, while *Lehigh* continues to have a fair foreign representation. Examining the foreign delegations at the different institutions by continents, we note that the order in North

America is *Harvard, Pennsylvania, Cornell, Columbia, Yale, Michigan*; in South America—*Cornell, Pennsylvania, Columbia and Ohio*; in Europe—*Pennsylvania, Columbia, Harvard, Cornell, Yale*; in Asia—*Columbia, Yale, Cornell, Harvard, California*; in Africa *Harvard* leads, while in Australasia *Pennsylvania* alone has a good representation. The countries of North and Central America naturally continue to send the largest foreign delegations to the institutions represented in the tables of 1906 and 1907, but Asia has passed Europe, and South America has increased its delegation by 40 per cent. As for individual countries, there is no change in the order for Canada, namely, *Harvard, Columbia, Cornell* and *Yale*; *Pennsylvania* continues to have the best Central American representation; *Cornell* attracts the largest number of Cubans and of Mexicans, and *Pennsylvania* the largest number of West Indians. Of the North American countries, Canada sends the largest delegation—177—followed by Cuba with 47, and Mexico with 44. Counting only the institutions represented in both this and last year's table, the Canadian representation shows an increase of 13, while Cuba exhibits a slight gain and Mexico a small loss. *Cornell* leads in the Argentine Republic and Peru; *Pennsylvania* in Brazil and Chili; *Columbia* in Colombia and Ecuador. Of the South American countries, the Argentine Republic sends the largest delegation, followed by Brazil, the position of these two countries having been reversed since last year.

In the European countries that send ten or more students the order is as follows: France—*Pennsylvania, Columbia and Harvard*; Germany—*Columbia, Pennsylvania and Michigan*; Great Britain and Ireland—*Harvard, Pennsylvania, Columbia and Yale*; Russia—*Pennsylvania, Columbia,*

*Cornell*; *Pennsylvania* leads in Holland and *Yale* in Turkey. England sends the largest number, namely 50, followed by Germany with 30, France with 22, and Russia with 19. Of the Asiatic countries, Japan sends 116, China 84 and India 39, both China and India having more than doubled their representation at the institutions contained in both this and last year's tables, while Japan's delegation has remained practically stationary. A number of residents of Asiatic Turkey were represented last year under Turkey in Europe, which accounts in part for a number of the changes affecting the respective representations from the two continents in question. *Harvard* draws the largest number of students from *China, Cornell* from India and *Columbia* from Japan. Practically all of the members of the Australian and New Zealand delegations in *Pennsylvania* are enrolled in the dental school, where most of this institution's foreigners are registered. In fact, the greatest percentage of foreign students enrolled in the universities of the United States is found in the professional and graduate schools; if these were omitted in the figures here given, the showing of the larger universities especially would be changed considerably.

RUDOLF TOMBO, JR.,  
Registrar

#### COLUMBIA UNIVERSITY

#### THE RELATIONS OF THE ENGINEERING SCHOOLS TO POLYTECHNIC INDUSTRIAL EDUCATION<sup>1</sup>

THE impulses which caused the settlers of New England to found schools and colleges simultaneously with clearing the land for their dwellings seem to have universally affected the pioneers of this country,

<sup>1</sup>Address of president of the Society for the Promotion of Engineering Education, delivered at Cleveland, O., July 2, at the annual meeting of the society.