Certificates Count:

An Analysis of Sub-baccalaureate Certificates

EXECUTIVE SUMMARY AND DATA APPENDICES

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COMPLETE COLLEGE AMERICA

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EXECUTIVE SUMMARY

Certificates Count: An Analysis of Sub-baccalaureate Certificates

Since President Obama took office, he has repeatedly called for the United States to significantly improve its postsecondary education performance. One goal in particular has gained wide attention: the President's declaration that in an ever more competitive global marketplace, the United States must once again lead the world in college attainment, challenging Americans to complete at least one year of education past high school.

Completion is the key when it comes to advanced education. To fully enjoy the benefits of higher knowledge and skills, one must graduate. Dropping in for a couple of courses at the local campus rarely makes much of a difference for long-term student success. Therefore, it is vitally important that states ensure that students have the opportunity to pursue the full range of higher education pathways that not only increase the likelihood of college completion, but also landing good careers.

A too often underutilized strategy – but one that can deliver greater income returns than associate and even some bachelor's degrees – is certificates. And for students balancing the jobs they must have with the advanced education they desire – a situation faced by most American college students today – completing a certificate can be the most direct path to college completion and career success.

Against this backdrop, *Certificates Count: An Analysis of Sub-baccalaureate Certificates* calls attention to the significant value of certificate programs – practical and often underutilized credentials that can provide graduates with an appealing combination of rapid postsecondary achievement and portable skills and knowledge. Certificates can position graduates for immediate workforce success, while establishing solid foundations for future academic achievement. For these reasons, *Certificates Count*, advocates for a national goal to double the number of long-term certificates produced within the next five years, and then double that number again over the subsequent five years.

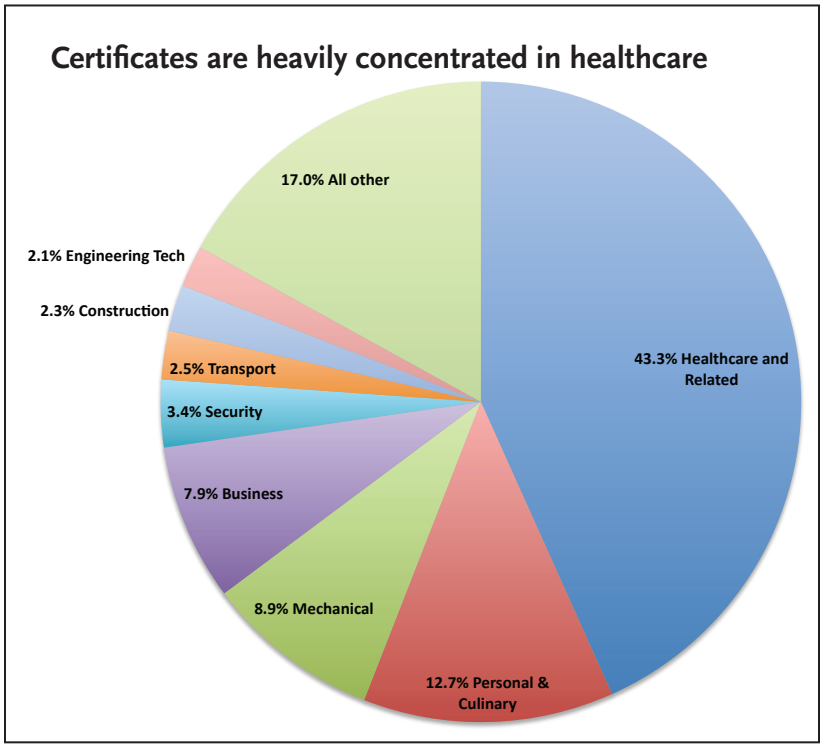
However, this study does not simply advocate the expansion of certificates on an across-the-board basis. It draws attention to important distinctions between certificate programs: length of program, subjects studied, program quality, and availability by geographical region.

For certificates to make a decisive contribution to U.S. postsecondary preparedness, states and institutions must ensure that certificate programs are of high quality, rigorous enough to have real value, tailored to the job market, widely available, and designed for timely completion.

What are certificates and who earns them?

Certificates, sometimes known as technical certificates or technical diplomas, are credentials issued by educational institutions that indicate completion of a discrete program of study or series of courses. The most popular programs, making up some 43 percent of all certificates, are in healthcare. Fields like business and technology also attract large numbers of students, who are generally eligible for federal and state financial aid.

About 750,000 certificates were awarded in 2007-2008, the most recent year for which data are available. That num-



Some definitions: Certificates are awarded by educational institutions to indicate completion of a program of study that does not culminate in a degree. Sub-baccalaureate certificates come in three categories based on length of study:

- Certificates for programs designed for completion in less than one academic year;
- Certificates for programs designed for completion in at least one but less than two academic years; and,
- Certificates for programs designed for completion in at least two but less than four academic years.

Certificates are not the same as *certifications* or *licenses*, which are typically awarded by third party, standard-setting bodies (not academic institutions), based on an assessment process that recognizes competencies in a particular occupational specialty as measured against a set of standards. Public-regulated bodies at the state or local level may grant licenses; private parties award most certifications. Individuals may or may not prepare for certification or licensure tests through academic study and they are only infrequently tied to academic awards.

ber represents a modest increase over the past decade (but a decline from the one million-plus certificates that were awarded in 1992-1993, before a regulatory crackdown on unscrupulous practices by some trade schools). A little more than half of all certificates are awarded by public sector institutions, mostly community colleges. About four in ten are granted by for-profit institutions.

On the demographic front, women account for close to two-thirds of certificate-holders. Certificates are also particularly appealing to black and Hispanic students, who earn about one-third of all certificates, compared to 20 percent of all bachelor's degrees. As with overall certificate numbers, there is a substantial gender imbalance among minorities, with black and Hispanic men earning less than half the number of certificates received by minority women.

A national goal to double the number of long-term certificates produced within the next five years, and then double that number again over the subsequent five years

Certificate programs vary enormously in length. Some require less than one academic year of study. Others take a year or longer to complete for students enrolled full time. A modest number of programs, accounting for less than 5 percent of all certificate awards, take two to four years of full-time study to complete. In recent years, there has been rapid growth in the awarding of short-term certificates, which have increased by 40 percent since 1997-98. Longer-term certificate during the same period have grown by 18 percent.

The certificate payoff

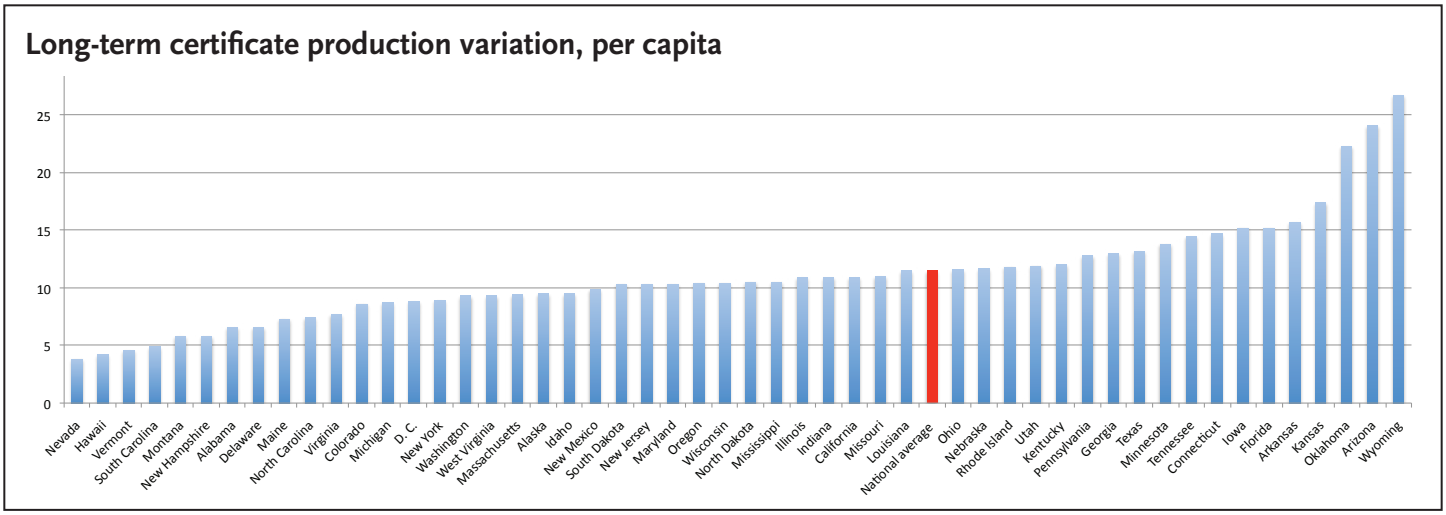
Economists and policymakers increasingly agree on the importance of human capital to economic advancement, both for individuals and for nations. This consensus is driven in part by research showing the labor market returns to even one additional year of schooling are significant.

However, very little research has focused specifically on sub-baccalaureate credentials, and the findings that do exist on the economic benefits of certificates do not distinguish between programs of different lengths. At the state level, research on the value of certificates is also imperfect because many states simply do not make a routine practice of analyzing the labor-market payoff of credentials issued by any post-secondary institutions within their borders.

Fortunately, some states do gather this data and have produced significant findings about the earnings returns to certificates. Their broad conclusion is this: overall, high quality certificate programs can significantly boost the likelihood of student academic and career success.

This state-level research clearly shows, however, that all certificates are not created equal. Long-term certificates have significantly higher labor market value than short-term certificates because of their greater technical and academic rigor, and because of the wider range of job-related skills they provide graduates. Certificates of one year or more are consistently linked to increased earnings. Moreover, individuals who complete long-term programs of study make significantly more money than those who enroll in these programs but do not complete them. By contrast, students who complete short-term certificates do not earn much more than those who enroll in such programs but do not complete them.

Research in Kentucky, for example, found that increases in average income for those who earned certificates of at



least one year were nearly identical to returns from associate degrees: almost 40 percent for women and around 20 percent for men. However, short-term certificates resulted in a much smaller increase. Men who completed certificate programs lasting less than one year earned about 10 percent more than those who did not complete, while the earnings advantage for women in these short-term programs was only about 3 percent.

Field of study is also tightly correlated with the labor-market returns of certificates. All of the national and state level research indicates that longer-term certificates in virtually all areas of nursing and allied healthcare produce the strongest returns. Certificates in technology, construction trades, and mechanic and repair trades also produce positive returns. By contrast, certificates in service occupations and the humanities do not yield consistently positive returns.

In some fields the median earnings of long-term certificate earners are equal to, or higher than, those who have obtained associate degrees, particularly when those associate degrees are in non-occupational fields and students who earned the credential did not go on to complete a bachelor's degree. Field of study is also important for short-term certificates, but because earnings outcomes are not strongly positive, the relative returns by field are not nearly as consequential as at the long-term certificate level.

Long-term certificates have one additional advantage: they can be completed quickly, particularly in colleges that are focused exclusively on certificate programs. Those institutions report completion rates two or three times faster than at colleges that offer both associates degrees and certificates. This may be attributable in part to highly structured "built-for-completion" program organization in certificate-only colleges that tend to work more effectively for students with time and economic pressures.

An under-utilized credential

Given what we know about how much more long-term certificates add to a graduate's earning power than short-term credentials, the rapid growth of short-term awards in recent years is troubling. Short-term rewards may be helpful in updating the skills of adult workers who are well launched in their occupations and who have good earnings history. But there is much room for skepticism about their labor market value for young adults, or for older and dislocated workers seeking to start a new occupation.

Policymakers and practitioners should also be concerned about the seemingly haphazard nature of the way states approach certificate production. There is striking variation among the states in total certificate awards relative to the population: Georgia, Kentucky, Wisconsin, Arizona, and Kansas produce 10 to 15 times as many certificates on a per-capita basis as do Hawaii, Nevada, Montana, and every state in the Northeast.

Certificates of one year or more are consistently linked to increased earnings

There is similarly wide variation among the states in the length of certificates produced. Indeed, the reason Kentucky, Louisiana, and Illinois are among the largest producers of certificates on a per capita basis is that they produce large numbers of less valuable short-term credentials. Wyoming, Oklahoma, and Arkansas produce mostly longer-term certificates. Arizona, Kansas, and Florida stand out as leaders in per capita certificate production both for programs of all lengths and for longer-term programs.

Some of this variation may be attributed to structural

differences in the economies of these states. It may be that some regional economies in the Northeast states of New York, New Jersey and Connecticut, for example, do not offer as many employment opportunities for certificate completers as might be the case in other states. But institutional culture and state policy probably play an even more significant role than economic factors. Differences in community college certificate offerings, both in numbers and in fields of study, even within the same state, suggest that program offerings may have less to do with labor market needs than with the interests of faculty or college leadership and the inertia of resource-allocation practices.

Conclusion and Recommendations

Complete College America believes that to significantly boost America's postsecondary graduation rate we must reinvent higher education to meet the needs of the new majority of students. These learners must balance the jobs they need with the education they desire.

Certificates are an important part of the solution. There is good reason to believe that expanded access to proven certificate programs of one year or more can help states build skilled workforces and boost wages. Yet there is wide variation among the states in certificate production, overall, by sector, and especially among community colleges. While many states effectively use certificates as part of a broad-based public post-secondary education strategy, most could do better.

To maximize the potential certificates hold for helping individuals and securing America's competitiveness, *Certificates Count* makes the following recommendations:

1. Count certificates toward attainment goals. Subbaccalaureate certificates of a year or more offer underappreciated and undeveloped potential to contribute to national, state, and college-level targets for educational attainment and skills development. To truly fulfill this potential, they need to be counted toward attainment goals. They should also be defined consistently and counted on a uniform basis.

2. Set aggressive goals. The federal government and the states should set aggressive goals for long-term certificate production and help colleges meet them. Some states that award comparatively few long-term certificates may be able to quickly and significantly ramp up production of these certificates. The United States should double the number of long-term certificates produced within the next five years, and then double that number again over the subsequent five years.

3. Reward long-term certificates. States should use funding formulas and other policy incentives to support robust certificate programs of one year or more. Shorter-term programs that lack significant labor-market payoffs should be discouraged.

4. Collect outcomes data, and promote labor-market alignment and consistent program offerings. States should collect and rigorously analyze data on labor market returns to certificates, and provide effective external oversight of certificate programs to ensure that these credentials have direct relevance to high-demand occupations. States should also promote greater consistency in program offerings and content in community college certificate programs. Today, major differences in programs are confusing to students and prospective employers, and create barriers to the kind of careful outcomes assessment that could improve program performance.

5. Focus on program completion. Federal and state policymakers should work with colleges to significantly improve certificate completion rates. "Built-for-completion" programs are a promising model because their course schedules and enrollment options are focused tightly on the needs of students. Program completion could also be improved with better alignment between certificate programs and associate degree programs.

None of these recommendations by itself will fully maximize the value of certificates. But taken together these measures would go a long way toward expanding the number of high-quality, practical, and valuable credentials earned by American students, and making the United States once again the leader in postsecondary attainment.

Appendix 1: Summary of Sub-Baccalaureate Certificates Awarded All Title IV Institutions, By Length, By Sector 2007-08

	Less Than One Year		One to Two Years		Two to Four Years		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Public								
Public Four-Year Degree-Granting	15,742	3.9	7,131	2.3	1,349	4.3	24,222	3.2
Public Two-Year Degree Granting	192,741	47.9	112,201	35.5	7,148	22.8	312,090	41.6
Public Non-Degree Granting	27,982	7	32,526	10.3	2,261	7.2	62,769	8.4
Total Public	236,465	58.8	151,858	48	10,758	34.3	399,081	53.2
Non Profit								
Non-Profit Four-Year Degree Granting	9,522	2.4	5,364	1.7	1,270	4.1	16,156	2.2
Non-Profit Two-Year Degree Granting	2,382	0.6	1,849	0.6	215	0.7	4,446	0.6
Non-Profit Non-Degree Granting	4,970	1.2	4,754	1.5	3,758	12	13,482	1.8
Total Non Profit	16,874	4.2	11,967	3.8	5,243	16.7	34,084	4.5
Private for Profit								
Private for Profit Four-Year Degree Granting	7,260	1.8	8,458	2.7	186	0.6	15,904	2.1
Private for Profit Two-Year Degree Granting	32,982	8.2	42,886	13.6	2,029	6.5	77,897	10.4
Private for Profit Non-Degree Granting	108,686	27	101,109	32	13,122	41.9	222,917	29.7
Total Private for Profit	148,928	37	152,453	48.2	15,337	48.9	316,718	42.2
Grand Total	402,267	100	316,278	100	31,338	100	749,883	100

Appendix 2: Summary of Sub-Baccalaureate Certificates Awarded All Title IV Institutions, By Length, By Program Category 2007-08

CIP Program Category	< 1 Year		1 < 2 Years		2 < 4 Years		Total	
	Number	%	Number	%	Number	%	Number	%
Degree Granting (mostly public institutions)								
Healthcare & Related	96,669	37.1	86,665	47	5,200	42.6	185,534	41.2
Business & Related	33,831	13	14,649	8.2	496	4.1	48,976	10.9
Mechanical/Repair Tech	17,776	6.8	18,489	10.4	2,089	17.1	38,354	8.5
Security & Protective	20,163	7.7	5,097	2.9	94	0.8	25,354	5.6
Transport & Materials Moving	17,394	6.7	841	0.5	42	0.3	18,277	4.1
Construction	9,425	3.6	7,097	4	921	7.6	17,443	3.9
Personal Services (mostly cosmetology, some culinary)	7,216	2.8	9,660	5.4	327	2.7	17,203	3.8
Engineering Technology	9,150	3.5	6,052	3.4	380	3.1	15,582	3.5
All Other 43 CIP Categories	49,005	18.8	29,339	16.5	2,648	21.7	80,992	18
Total Degree Granting	260,629	100	177,889	100	12,197	100	450,715	100
Non-Degree Granting (mostly private for-profit institutions)								
Healthcare & Related	77,739	54.9	53,440	38.6	5,724	29.9	136,903	45.8
Personal Services (mostly cosmetology, some culinary)	23,530	16.6	47,387	34.2	6,154	32.2	77,071	25.8
Mechanical/Repair Tech	4,461	3.1	18,113	13.1	5,008	26.2	27,582	9.2
Business & Related	6,275	4.4	3,603	2.6	134	0.7	10,012	3.3
All Other 46 CIP Categories	27,633	19.5	15,846	11.5	2,121	11.1	45,600	15.1
Total Non-Degree Granting	141,638	100	138,389	100	19,141	100	299,168	100
Total All Certificates	402,267		316,278		31,338		749,883	100

Appendix 3: All Certificate Awards by State By Sector and Public as a Percentage of the Total 2007-08

State	All Certificates	Public Sector	Non-Profit Sector	For-Profit Sector	Public as % of All
District of Columbia	1321	0	472	849	0.0%
Rhode Island	2800	164	201	2435	5.9%
New Jersey	14108	1438	514	12156	10.2%
Connecticut	7570	891	469	6210	11.8%
Nevada	2931	502	59	2370	17.1%
New York	23529	5313	4056	14160	22.6%
Pennsylvania	26321	6024	3137	17160	22.9%
Massachusetts	10796	2974	575	7247	27.5%
New Hampshire	1446	446	59	941	30.8%
Oregon	5663	1809	85	3769	31.9%
Missouri	9384	3035	626	5723	32.3%
Maine	1122	377	100	645	33.6%
Texas	58007	21083	1315	35609	36.3%
Maryland	8308	3040	60	5208	36.6%
Michigan	20400	8701	1404	10295	42.7%
Wyoming	1662	713	0	949	42.9%
California	116302	49922	10563	55817	42.9%
Hawaii	843	380	33	430	45.1%
Indiana	8573	3892	157	4524	45.4%
Vermont	421	194	125	102	46.1%
Virginia	11187	5249	768	5170	46.9%
Idaho	2005	961	12	1032	47.9%
Tennessee	14164	7380	119	6665	52.1%
National Average					53.2%
Ohio	28033	15303	1602	11128	54.6%
Delaware	1617	883	35	699	54.6%
Montana	682	376	74	232	55.1%
Florida	66477	37498	965	28014	56.4%
Arizona	29275	17170	2	12103	58.7%
Nebraska	3441	2064	140	1237	60.0%
North Dakota	840	505	44	291	60.1%
West Virginia	2526	1545	163	818	61.2%
Utah	7139	4455	184	2500	62.4%
Illinois	41890	26298	2339	13253	62.8%
Louisiana	18037	11369	52	6616	63.0%
New Mexico	4008	2673	0	1335	66.7%
Mississippi	3685	2462	2	1221	66.8%
Alaska	1101	741	0	360	67.3%
Iowa	6690	4610	190	1890	68.9%
Oklahoma	10574	7461	0	3113	70.6%
Washington	16450	11651	284	4515	70.8%
Alabama	5467	3943	43	1481	72.1%
South Dakota	1139	828	67	244	72.7%
Colorado	14948	11150	385	3413	74.6%
Kansas	9743	7288	483	1972	74.8%
Minnesota	13713	10573	656	2484	77.1%
Arkansas	8617	6864	461	1292	79.7%
Georgia	40773	32890	0	7883	80.7%
South Carolina	8348	6938	27	1383	83.1%
Kentucky	19678	16397	116	3165	83.3%
North Carolina	18559	15699	440	2420	84.6%
Wisconsin	17570	14959	421	2190	85.1%
National Totals	749883	399081	34084	316718	

Appendix 4: All Certificates and Public Sector Certificates By State per 10,000 Population, Ranked, 2007-08

Table 4A: All Certificates				Table 4B: Public-sector Certificates		
State	All Certs	Per 10,000 population		State	Public-sector certs	Per 10,000 population
Hawaii	843	6.5		D. C.	0	0.0
Vermont	421	6.8		Rhode Island	164	1.6
Montana	682	7.0		New Jersey	1438	1.7
Maine	1122	8.5		Nevada	502	1.9
New Hampshire	1446	11.0		Connecticut	891	2.5
Nevada	2931	11.3		New York	5313	2.7
Alabama	5467	11.7		Maine	377	2.9
New York	23529	12.1		Hawaii	380	2.9
Mississippi	3685	12.5		Vermont	194	3.1
North Dakota	840	13.1		New Hampshire	446	3.4
Idaho	2005	13.2		Montana	376	3.9
Indiana	8573	13.4		Massachusetts	2974	4.6
West Virginia	2526	13.9		Oregon	1809	4.8
South Dakota	1139	14.2		Pennsylvania	6024	4.8
Virginia	11187	14.4		Missouri	3035	5.1
Maryland	8308	14.7		Maryland	3040	5.4
Oregon	5663	14.9		Indiana	3892	6.1
Missouri	9384	15.9		Idaho	961	6.3
Alaska	1101	16.0		Virginia	5249	6.8
New Jersey	14108	16.2		North Dakota	505	7.9
Massachusetts	10796	16.6		Mississippi	2462	8.4
Delaware	1617	18.5		Alabama	3943	8.5
South Carolina	8348	18.6		West Virginia	1545	8.5
Nebraska	3441	19.3		Texas	21083	8.7
North Carolina	18559	20.1		Michigan	8701	8.7
New Mexico	4008	20.2		Delaware	883	10.1
Michigan	20400	20.4		South Dakota	828	10.3
Pennsylvania	26321	21.1		Alaska	741	10.8
Connecticut	7570	21.6		Nebraska	2064	11.6
Iowa	6690	22.3		Tennessee	7380	11.9
D.C.	1321	22.3		Nation Average		13.3
Tennessee	14164	22.8		Ohio	15303	13.3
Texas	58007	23.8		Wyoming	713	13.4
Ohio	28033	24.4		New Mexico	2673	13.5
Nation Average		24.7		California	49922	13.6
Washington	16450	25.1		Iowa	4610	15.4
Utah	7139	26.1		South Carolina	6938	15.5
Minnesota	13713	26.3		Utah	4455	16.3
Rhode Island	2800	26.6		North Carolina	15699	17.0
Oklahoma	10574	29.0		Washington	11651	17.8
Arkansas	8617	30.2		Minnesota	10573	20.3
Colorado	14948	30.3		Illinois	26298	20.4
Wyoming	1662	31.2		Florida	37498	20.5
Wisconsin	17570	31.2		Oklahoma	7461	20.5
California	116302	31.6		Colorado	11150	22.6
Illinois	41890	32.5		Arkansas	6864	24.0
Kansas	9743	34.8		Louisiana	11369	25.8
Florida	66477	36.3		Kansas	7288	26.0
Louisiana	18037	40.9		Arizona	17170	26.4
Georgia	40773	42.1		Wisconsin	14959	26.6
Arizona	29275	45.0		Georgia	32890	34.0
Kentucky	19678	46.1		Kentucky	16397	38.4
Nation Totals	749883			Nation Totals	399081	

Appendix 5: Certificate Awards by State as a Percentage of All Sub-Baccalaureate Completions, 2007-08

State	All Certificates	All Associate Degrees	All Sub-baccalaureate Degrees	Certs as a % of All Sub-bac. Awards
Hawaii	843	3,128	3,971	27.0%
Vermont	421	1,264	1,685	33.3%
North Dakota	840	2,211	3,051	38.0%
New York	23,529	57,807	81,336	40.7%
Mississippi	3,685	8,822	12,507	41.8%
Maine	1,122	2,679	3,801	41.9%
Montana	682	1,601	2,283	42.6%
New Hampshire	1,446	3,179	4,625	45.5%
Iowa	6,690	13,537	20,227	49.4%
South Dakota	1,139	2,045	3,184	55.7%
Indiana	8,573	14,598	23,171	58.7%
Alabama	5,467	9,171	14,638	59.6%
Wyoming	1,662	2,703	4,365	61.5%
Virginia	11,187	17,675	28,862	63.3%
Missouri	9,384	14,445	23,829	65.0%
West Virginia	2,526	3,844	6,370	65.7%
Idaho	2,005	2,924	4,929	68.6%
Oregon	5,663	8,023	13,686	70.6%
Nebraska	3,441	4,836	8,277	71.2%
Utah	7,139	9,904	17,043	72.1%
Maryland	8,308	10,964	19,272	75.8%
Rhode Island	2,800	3,692	6,492	75.8%
Michigan	20,400	26,443	46,843	77.1%
Washington	16,450	21,194	37,644	77.6%
New Mexico	4,008	5,053	9,061	79.3%
Minnesota	13,713	16,592	30,305	82.6%
New Jersey	14,108	16,904	31,012	83.5%
Nevada	2,931	3,415	6,346	85.8%
Arizona	29,275	33,325	62,600	87.8%
North Carolina	18,559	19,622	38,181	94.6%
Massachusetts	10,796	10,926	21,722	98.8%
Pennsylvania	26,321	26,575	52,896	99.0%
Nation	749,883	750,164	1,500,047	100.0%
Florida	66,477	65,948	132,425	100.8%
Ohio	28,033	26,830	54,863	104.5%
South Carolina	8,348	7,943	16,291	105.1%
Alaska	1,101	1,031	2,132	106.8%
Delaware	1,617	1,475	3,092	109.6%
Oklahoma	10,574	9,457	20,031	111.8%
Kansas	9,743	8,175	17,918	119.2%
California	116,302	97,010	213,312	119.9%
Illinois	41,890	34,013	75,903	123.2%
Dist. of Columbia	1,321	1,047	2,368	126.2%
Texas	58,007	45,867	103,874	126.5%
Colorado	14,948	11,219	26,167	133.2%
Tennessee	14,164	9,712	23,876	145.8%
Wisconsin	17,570	11,884	29,454	147.8%
Connecticut	7,570	5,056	12,626	149.7%
Arkansas	8,617	5,567	14,184	154.8%
Kentucky	19,678	10,148	29,826	193.9%
Georgia	40,773	13,684	54,457	298.0%
Louisiana	18,037	4,997	23,034	361.0%

Appendix 6: Certificate Awards by State Per 10,000 Population, 2007-08

Table 6A				Table 6B		
State	**All Certificates**	**All Certificates per 10,000 Population**		**State**	**Certificates of 1 to 4 Years**	**1 to 4 Year Certificates per 10,000 Population**
Hawaii	843	6.5		Nevada	992	3.8
Vermont	421	6.8		Hawaii	547	4.2
Montana	682	7		Vermont	286	4.6
Maine	1122	8.5		South Carolina	2212	4.9
New Hampshire	1446	11		Montana	557	5.8
Nevada	2931	11.3		New Hampshire	768	5.8
Alabama	5467	11.7		Alabama	3085	6.6
New York	23529	12.1		Delaware	579	6.6
Mississippi	3685	12.5		Maine	961	7.3
North Dakota	840	13.1		North Carolina	6789	7.4
Idaho	2005	13.2		Virginia	5969	7.7
Indiana	8573	13.4		Colorado	4226	8.6
West Virginia	2526	13.9		Michigan	8670	8.7
South Dakota	1139	14.2		D. C.	522	8.8
Virginia	11187	14.4		New York	17347	8.9
Maryland	8308	14.7		Washington	6079	9.3
Oregon	5663	14.9		West Virginia	1695	9.3
Missouri	9384	15.9		Massachusetts	6139	9.4
Alaska	1101	16		Alaska	651	9.5
New Jersey	14108	16.2		Idaho	1448	9.5
Massachusetts	10796	16.6		New Mexico	1972	9.9
Delaware	1617	18.5		South Dakota	827	10.3
South Carolina	8348	18.6		New Jersey	8970	10.3
Nebraska	3441	19.3		Maryland	5826	10.3
North Carolina	18559	20.1		Oregon	3952	10.4
New Mexico	4008	20.2		Wisconsin	5875	10.4
Michigan	20400	20.4		North Dakota	673	10.5
Pennsylvania	26321	21.1		Mississippi	3086	10.5
Connecticut	7570	21.6		Illinois	14069	10.9
Iowa	6690	22.3		Indiana	6959	10.9
D. C.	1321	22.3		California	40189	10.9
Tennessee	14164	22.8		Missouri	6517	11
Texas	58007	23.8		Louisiana	5072	11.5
Ohio	28033	24.4		Nation	347616	11.5
Nation	749883	24.9		Ohio	13358	11.6
Washington	16450	25.1		Nebraska	2079	11.7
Utah	7139	26.1		Rhode Island	1244	11.8
Minnesota	13713	26.3		Utah	3266	11.9
Rhode Island	2800	26.6		Kentucky	5126	12
Oklahoma	10574	29		Pennsylvania	15978	12.8
Arkansas	8617	30.2		Georgia	12582	13
Colorado	14948	30.3		Texas	32120	13.2
Wyoming	1662	31.2		Minnesota	7216	13.8
Wisconsin	17570	31.2		Tennessee	8992	14.5
California	116302	31.6		Connecticut	5130	14.7
Illinois	41890	32.5		Iowa	4564	15.2
Kansas	9743	34.8		Florida	27881	15.2
Florida	66477	36.3		Arkansas	4484	15.7
Louisiana	18037	40.9		Kansas	4869	17.4
Georgia	40773	42.1		Oklahoma	8115	22.3
Arizona	29275	45		Arizona	15679	24.1
Kentucky	19678	46.1		Wyoming	1424	26.7

Appendix 7: All Sub-Baccalaureate Awards by State, Per 10,000 Population, 2007-08

State	All Sub-Baccalaureate Awards	All Sub-Baccalaureate Awards per 10,000 Population
Montana	2,283	23.6
Nevada	6,346	24.4
Vermont	1,685	27.1
Maine	3,801	28.9
Hawaii	3,971	30.8
Alaska	2,132	31.1
Alabama	14,638	31.4
Idaho	4,929	32.3
Massachusetts	21,722	33.4
Maryland	19,272	34.2
West Virginia	6,370	35.1
New Hampshire	4,625	35.1
Delaware	3,092	35.4
New Jersey	31,012	35.7
Connecticut	12,626	36.1
Oregon	13,686	36.1
Indiana	23,171	36.3
South Carolina	16,291	36.4
Virginia	28,862	37.1
Tennessee	23,876	38.4
South Dakota	3,184	39.6
D. C.	2,368	40
Missouri	23,829	40.3
North Carolina	38,181	41.4
New York	81,336	41.7
Pennsylvania	52,896	42.5
Mississippi	12,507	42.6
Texas	103,874	42.7
New Mexico	9,061	45.7
Nebraska	8,277	46.4
Michigan	46,843	46.8
North Dakota	3,051	47.6
Ohio	54,863	47.8
Arkansas	14,184	49.7
Nation	1,500,047	49.8
Louisiana	23,034	52.2
Wisconsin	29,454	52.3
Colorado	26,167	53
Oklahoma	20,031	55
Georgia	54,457	56.2
Washington	37,644	57.5
California	213,312	58
Minnesota	30,305	58.1
Illinois	75,903	58.8
Rhode Island	6,492	61.8
Utah	17,043	62.3
Kansas	17,918	63.9
Iowa	20,227	67.4
Kentucky	29,826	69.9
Florida	132,425	72.3
Wyoming	4,365	81.9
Arizona	62,600	96.3

Appendix 8: Associate's Degrees and Certificates Awarded by Public Two-Year Institutions, 2007-08

State	Associate's degrees	all certificates	all sub-baccalaureate completions	Less than 1 Year Certificates	More Than 1 Year Certificates
Alabama	7,679	3,833	11,512	2,036	1,797
Alaska	24	47	71	44	3
Arizona	12,400	16,332	28,732	7,068	9,264
Arkansas	4,116	5,718	9,834	2,972	2,746
California	81,743	41,483	123,226	27,835	13,648
Colorado	5,798	6,653	12,451	5,028	1,625
Connecticut	3,917	891	4,808	879	12
Delaware	1,126	883	2,009	508	375
District of Columbia	0	0	0	0	0
Florida	30,319	12,155	42,474	9,560	2,595
Georgia	7,945	32,342	40,287	23,348	8,994
Hawaii	2,055	240	2,295	0	240
Idaho	1,135	447	1,582	189	258
Illinois	25,119	26,029	51,148	20,587	5,442
Indiana	5,377	2,561	7,938	349	2,212
Iowa	10,262	4,524	14,786	1,511	3,013
Kansas	7,099	6,056	13,155	4,092	1,964
Kentucky	6,483	16,297	22,780	14,051	2,246
Louisiana	2,838	9,544	12,382	7,004	2,540
Maine	1,550	365	1,915	5	360
Maryland	10,255	2,421	12,676	14	2,407
Massachusetts	8,643	2,581	11,224	1,750	831
Michigan	20,360	7,852	28,212	3,472	4,380
Minnesota	12,443	10,379	22,822	5,044	5,335
Mississippi	8,340	2,417	10,757	156	2,261
Missouri	8,770	1,937	10,707	526	1,411
Montana	1,070	220	1,290	9	211
Nebraska	4,032	2,064	6,096	1,095	969
Nevada	460	241	701	0	241
New Hampshire	1,466	442	1,908	366	76
New Jersey	15,207	718	15,925	133	585
New Mexico	4,494	2,585	7,079	866	1,719
New York	33,049	1,889	34,938	0	1,889
North Carolina	17,651	15,589	33,240	10,967	4,622
North Dakota	1,019	318	1,337	90	228
Ohio	15,189	7,590	22,779	4,875	2,715
Oklahoma	6,734	514	7,248	191	323
Oregon	6,795	1,807	8,602	396	1,411
Pennsylvania	12,189	2,546	14,735	1,105	1,441
Rhode Island	1,223	161	1,384	48	113
South Carolina	6,968	6,916	13,884	5,356	1,560
South Dakota	1,069	738	1,807	208	530
Tennessee	6,741	1,509	8,250	1,033	476
Texas	38,497	19,917	58,414	6,760	13,157
Utah	3,852	3,183	7,035	2,183	1,000
Vermont	453	40	493	0	40
Virginia	12,274	4,886	17,160	3,314	1,572
Washington	17,278	9,982	27,260	6,621	3,361
West Virginia	2,065	685	2,750	223	462
Wisconsin	9,288	12,891	22,179	8,678	4,213
Wyoming	2,147	672	2,819	196	476
Nation	507,006	312,090	819,096	192,741	119,349

Appendix 9: Public Two-Year Degree-Granting Institutions Certificates as a Percentage of all Sub-Baccalaureate Completions, 2007-08

State	All Certificates as a % of all Sub-Baccalaureate Completions		State	1 Year and More Certs as a % of All Sub-Baccalaureate Completions
New Jersey	4.5%		Connecticut	0.2%
New York	5.4%		New Jersey	3.7%
Oklahoma	7.1%		New Hampshire	4.0%
Vermont	8.1%		Alaska	4.2%
Hawaii	10.5%		Oklahoma	4.5%
Rhode Island	11.6%		New York	5.4%
Montana	17.1%		Tennessee	5.8%
Pennsylvania	17.3%		Florida	6.1%
Missouri	18.1%		Massachusetts	7.4%
Tennessee	18.3%		Vermont	8.1%
Connecticut	18.5%		Rhode Island	8.2%
Maine	19.1%		Virginia	9.2%
Maryland	19.1%		Pennsylvania	9.8%
Oregon	21.0%		Kentucky	9.9%
Mississippi	22.5%		Hawaii	10.5%
Massachusetts	23.0%		Illinois	10.6%
New Hampshire	23.2%		California	11.1%
North Dakota	23.8%		South Carolina	11.2%
Wyoming	23.8%		Ohio	11.9%
West Virginia	24.9%		Washington	12.3%
Michigan	27.8%		Colorado	13.1%
Idaho	28.3%		Missouri	13.2%
Virginia	28.5%		North Carolina	13.9%
Florida	28.6%		Utah	14.2%
Iowa	30.6%		Nation	14.6%
Indiana	32.3%		Kansas	14.9%
Alabama	33.3%		Michigan	15.5%
Ohio	33.3%		Alabama	15.6%
California	33.7%		Nebraska	15.9%
Nebraska	33.9%		Idaho	16.3%
Texas	34.1%		Montana	16.4%
Nevada	34.4%		Oregon	16.4%
New Mexico	36.5%		West Virginia	16.8%
Washington	36.6%		Wyoming	16.9%
Nation	38.1%		North Dakota	17.1%
South Dakota	40.8%		Delaware	18.7%
Delaware	44.0%		Maine	18.8%
Utah	45.2%		Maryland	19.0%
Minnesota	45.5%		Wisconsin	19.0%
Kansas	46.0%		Iowa	20.4%
North Carolina	46.9%		Louisiana	20.5%
South Carolina	49.8%		Mississippi	21.0%
Illinois	50.9%		Georgia	22.3%
Colorado	53.4%		Texas	22.5%
Arizona	56.8%		Minnesota	23.4%
Wisconsin	58.1%		New Mexico	24.3%
Arkansas	58.1%		Indiana	27.9%
Alaska	66.2%		Arkansas	27.9%
Kentucky	71.5%		South Dakota	29.3%
Louisiana	77.1%		Arizona	32.2%
Georgia	80.3%		Nevada	34.4%

Appendix 10: Associate Degrees and Long Term Certificates Per Population, Ranked by State, Community Colleges Only, 2007-08

Associate Degrees per 10,000			Long-term Certificates per 10,000			Associate Degrees and Long Term Certificates per 10,000	
Alaska	0.3		Connecticut	0.1		Alaska	0.5
Nevada	1.7		Vermont	0.1		Nevada	2.6
Louisiana	6.2		Alaska	0.1		Vermont	7.4
Vermont	7.3		New Hampshire	0.7		Idaho	9.2
Idaho	7.7		New Jersey	0.7		Pennsylvania	10.5
Indiana	7.9		Tennessee	0.7		Connecticut	11.1
Georgia	8.3		Oklahoma	0.8		Indiana	11.4
Pennsylvania	9.5		New York	0.9		Tennessee	11.9
Montana	10.5		Nevada	1.0		New Hampshire	11.9
Rhode Island	10.9		Pennsylvania	1.0		Rhode Island	12.0
Connecticut	11.0		Rhode Island	1.1		Montana	12.7
Colorado	11.1		Massachusetts	1.3		Colorado	13.8
Tennessee	11.1		Florida	1.4		Massachusetts	14.1
New Hampshire	11.2		Idaho	1.5		West Virginia	14.3
West Virginia	11.3		Hawaii	1.7		Ohio	14.7
Maine	12.2		Virginia	1.9		Maine	14.8
Delaware	12.4		Ohio	2.0		Louisiana	15.4
Ohio	12.7		Montana	2.2		Missouri	16.7
Massachusetts	12.8		Missouri	2.3		Virginia	17.1
Utah	13.7		Maine	2.7		New Jersey	17.1
Arkansas	14.4		Colorado	2.7		Florida	17.2
Missouri	14.4		West Virginia	3.0		Delaware	17.2
Alabama	14.9		South Carolina	3.2		Utah	17.4
South Dakota	15.0		Indiana	3.5		Georgia	17.9
South Carolina	15.1		Utah	3.7		New York	18.0
Kentucky	15.2		Oregon	3.7		South Carolina	18.3
Virginia	15.2		California	3.8		Hawaii	18.5
Texas	15.3		Michigan	4.0		Alabama	19.0
Florida	15.7		Alabama	4.1		Oklahoma	19.8
New Jersey	16.4		National Average	4.1		Kentucky	20.6
National Average	16.5		Illinois	4.4		National Average	20.6
Wisconsin	16.5		Maryland	4.4		Texas	21.1
Hawaii	16.8		North Carolina	4.8		Maryland	21.6
New York	17.0		Delaware	4.9		Oregon	21.6
Maryland	17.2		North Dakota	5.4		South Dakota	21.7
Oregon	17.9		Kentucky	5.4		Arkansas	21.8
Arizona	18.5		Nebraska	5.5		Michigan	23.1
Oklahoma	19.0		Texas	5.8		North Carolina	24.0
Michigan	19.1		Washington	5.9		Illinois	24.3
North Carolina	19.1		Kansas	6.2		Wisconsin	24.3
Illinois	19.9		South Dakota	6.7		California	26.1
New Mexico	21.8		Arkansas	7.5		Nebraska	28.5
California	22.3		Mississippi	7.6		Kansas	30.1
Nebraska	23.0		Wisconsin	7.7		New Mexico	30.1
Minnesota	23.0		Wyoming	7.9		Washington	32.0
Kansas	23.9		New Mexico	8.3		North Dakota	33.4
Washington	26.1		Louisiana	9.2		Minnesota	33.4
Mississippi	27.8		Georgia	9.7		Mississippi	35.3
North Dakota	28.0		Minnesota	10.4		Arizona	35.6
Iowa	35.1		Iowa	10.6		Iowa	45.8
Wyoming	39.2		Arizona	17.1		Wyoming	47.0