Community College Funding: Legislators' Attitudes

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The purpose of this article is to examine the impact of the Obama Administration's Community College Initiative (CCI) on state legislators' attitude toward economic funding for community colleges. Data on legislators' attitude toward community colleges funding were collected using a customized Community College Goals Inventory (CCGI) survey developed by the Educational Testing Service (ETS), the American Association of Community and Junior Colleges. Data were analyzed using descriptive and inferential statistics including measures of central tendency and dispersion as well as ANOVA, regression analysis, t-test or F-test. The results indicated that President Obama's Community College Initiative has had a positive and statistically significant influence on state legislators' attitude toward community college funding. Additionally, demographic characteristics and information sources, that is, where legislators obtain their knowledge to make decision about educational policies both had a positive and statistically significant impact on legislators' attitude toward community college funding. The article provides insight into funding-attitude markers, that can be used as capital by community college presidents to shape funding policies affecting their institutions.

Keywords: Community College; Legislators Opinions & Attitudes; Higher Education Funding

Introduction

Attaining a post-secondary degree or credential is no longer just a pathway to opportunity for a few talented people; rather, it is a prerequisite for the growing jobs of the new economy. Over this decade, employment in jobs requiring education beyond a high school diploma will grow more rapidly than employment in jobs that do not; of the 30 fastest growing occupations, more than half require postsecondary education. With the average earnings of college graduates at a level that is twice as high as that of workers with only a high school diploma, higher education is now the clearest pathway into the middle class (National Center for Education Statistics, 2013).

In higher education, the United States (US) has been outpaced internationally. In 2009, the US ranks ninth in the world in the proportion of young adults enrolled in college, and we've fallen to 12th in the world in our share of certificates and degrees awarded to adults aged 25 - 34—lagging behind Korea, Canada, Japan, United Kingdom and other nations (Organization for Economic Co-operation and Development, 2013). We also suffer from a college attainment gap, as high school graduates from the wealthiest families in our nation are almost certain to continue on to higher education, while just over half of our high school graduates in the poorest quarter of families attend college (The White House, 2013).

To close the attainment gap, the US is looking forward our community colleges. Today, the nation's community colleges enroll nearly 7 million undergraduates, or nearly 4 million full-time equivalent (FTE) students (about 35 percent of all students in higher education). This is up from 3 million FTE students in 2000 (Snyder & Dillow, 2011). The graduation rate is 3 years for 2-year degrees and 6 years for 4-year degrees. Using this rate, community colleges have a 22-percent graduation rate. In comparison, non-selective four-year public institutions have a 29 percent graduation rate (Horn, 2010).

Graduation rates don't tell whole story, and according to a the National Student Clearinghouse, 15 percent of students who started at two-year institutions in 2006 completed a degree at a four-year institution within six years. Nearly two-thirds of these students (63%) did so without first obtaining a two-year degree. Traditional graduation rates that focus on completions at the starting institution do not account for this type of outcome. Thus, community colleges often do not receive credit for many students who go on to complete a four-year degree (Shapiro, Dundar, Chen, Ziskin, Park, Torres, & Chiang, 2012).

The 2008 Great Recession has made community colleges more than an every vital link in the educational chain and work force preparedness. However, community colleges are highly dependent on state funding, since unlike four-year public schools, they do not have diversified revenue sources such as hospitals, endowments, or research grants. While enrollments have been increasing, state funding per student has remained relatively flat (see **Figure 1**). In 2009, community colleges received approximately $6450 per FTE student, only slightly higher than the $6210 in 1999 (Desrochers & Wellman, 2011).

Acknowledging these issues early in his Administration, President Obama challenged every American to commit to at least one year of higher education or post-secondary training. The President has also set a new goal for the country: that by
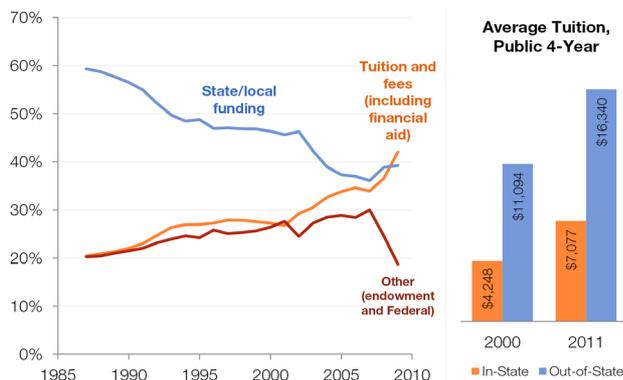
Figure 1.
Community college enrollment and state funding. United States department of education, the economics of higher education, December 2012.

2020, America would once again have the highest proportion of college graduates in the world (The White House, 2009). The Obama Administration has been working to make college more accessible, affordable, and attainable for all American families. In so doing, the President is expanding his commitment to the Community College Initiative by promoting industry partnerships to foster career readiness and jobs creation for trained workers. In the 2013 budget request, President Obama proposed the Community College to Career Fund, an $8 billion investment in community colleges and states over three years to partner with businesses to train workers in a range of high-growth and in-demand areas, such as health care, logistics, transportation, and advanced manufacturing (US Department of Education, 2012). In the 2014 budget request, $4 billion in mandatory funds, beginning in fiscal year 2015, are for a Community College to Career Fund that would support community college-based training programs and other activities that help to prepare workers for jobs in high-growth and high-demand sectors (US Department of Education, 2013). These should help America's students and workers receive the education and training needed for the jobs of today and tomorrow, and provide greater security for the middle class.

Aim

The purpose of this article is to examine the impact of the Obama Administration's Community College Initiative (CCI) on state legislator's attitude toward funding for community colleges.

Method

The survey method was used to investigate the impact of demographic characteristics, information sources and the Obama's Administration Community College Initiative on state legislators' attitude toward funding for community colleges.

Survey

The survey instrument was a modification of the original Community College Goals Inventory (CCGI) as developed by the Educational Testing Service (ETS) and the American Association of Community and Junior Colleges (Peterson & Uhi, 1979). The survey asked respondents to use a five-point Likert scale to capture their attitudes toward community college missions and functional areas. The modified 33-item questionnaire comprised of closed-ended questions was designed to help community colleges define their educational goals, establish priorities among those goals, and give direction to their present and future planning.

Reliability and validity for the CCGI are 0.87 and 0.88, respectively. The CCGI has been well vetted; validity has been tested by nineteen specialists familiar with California's four year colleges and universities, and community colleges (Peterson, 2002).

The survey design is longitudinal. Data was collected in 2007 and 2012. This time period reflects the pre and post President Obama Administration's Community College Initiatives. The survey captured data on legislators' attitudes toward the missions and functional area of the community college. The missions and functions are those defined by Cohen and Brawer (2008) as academic transfer/general education, globalization, community service, continuing education, developmental education, open access, student services, vocational-technical training, and funding.

Sample

The sample was drawn from the Maryland general assembly roster and list of committees for 2006 and 2011 sessions (Department of Legislative Services, 2006 & 2011). The study's sample size is 111 legislators, which was determined by Krejcie and Morgan formula with a finite population (N) of 188 Maryland state legislators, a 95-percent level of confidence, and a sample proportion (p) that would be within a margin of error value of 0.06 of the population proportion (p) value of 0.5 (Krejcie & Morgan, 1970).

Statistical Analysis

Data was analyses included descriptive and inferential statistics. For each survey question descriptive statistics were calculated including measures of central tendency (means, modes, or percentages) and measures of dispersion (variances or standard deviations). The descriptive data was then used to help narrow the focus of the inferential statistics employed to capture the influence of national educational policy on legislators' attitude toward community college funding. Analyses used for statistical inference included one or more of the following statistical procedures and tests where appropriate: ANOVA, regression analysis, t-test or F-test.

Results and Discussion

The dependent variable is the attitude of legislator's towards community college funding (see **Figure 2**). Funding is one community college element function defined by Cohen and Brawer (2008) that is a part of identifying the mission of community college. Attitude toward funding is measured as percent score. Three of the 33 questions asked on the attitude assessment survey captured funding. Each question was based on a five point scale. The maximum score for funding attitude is 15 points, if a respondent answered every question as 5 (extremely important). To make the data quantitative, each respondent's attitude score is converted into a percent based on 100 point scale. For example, if a respondent's attitude score for community college funding summed to 13, then the percent score

Attitude toward
Community College
Funding

Values vary by demographics, race, education, gender, occupation, political affiliation, and years of service.

Beliefs vary by awareness, knowledge, or sources of information, state government, media federal government, etc.
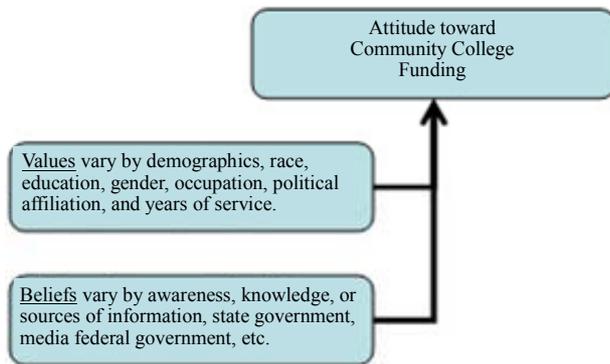
Figure 2.
Applied Rosenberg's structure attitude theory dynamics.

would equal 86.7% [i.e., (13/15) * 100 = 86.7]. This implies that respondent had an above-average favorable attitude toward community college funding.

The independent variables are classified into two distinct groups, values and beliefs (see **Figure 2**). The first group, values measures demographic characteristics of the legislators such as, educational attainment, age, gender, race, income, political affiliation, occupation and years of service. Payne (1984) sanctions the importance of these characteristics in particular to politicians. He describes politicians as complex human being, each with idiosyncratic traits, attitudes, and abilities, which has a bearing on their choices. The second group, beliefs measure awareness or knowledge. It captures information sources or where legislators' collect information from to make their decisions about educational policy. These sources included obtaining information from the governor's office, state higher education agency, constituents/taxpayers, business leaders, other legislators, advisors or experts, media, federal government, national or regional organizations, the state legislative audit, research, & review board, faculty unions as well as awareness of the Obama Administration's Community College Initiative.

Obama Administration's CCI on CCF Attitude

To captured how national educational policy influences Maryland legislators' attitude toward community college funding, an independent sample t-test was conducted testing the difference between 2007 and 2012 mean values attitude score towards community college funding. The shift in national policy is reflected in the cohorts 2007 and 2012, capturing President Obama's Community College Initiative. **Table 1** presents the results of the t-test. The Levene's test for homogeneity of variances is $F(1,108) = .048$, $p = .827$. Accordingly, the t-test for equal variances not assumed should be used. In that case, the t-test indicates a significant difference in attitude toward community college funding between groups, $t(103) = -3.124$, $p = .002$. This result suggests that Maryland state legislators Pre-Obama Community College Initiative (M = 66.67; SD = 15.65) have less favorable attitudes toward community college funding than Maryland state legislators Post-Obama Community College Initiative (M = 75.89; SD = 15.14). The mean difference (MD) is −9.22. Using Cohen's d (1992), the size of this effect −.60, which exceeds the convention of a medium effect size (d = 50). In other words, the Obama's Community College Initiative has had a positive and statistically significant influence on

Maryland state legislators' attitude toward community college funding.

Demographic Characteristics

Each regression model was estimated using the ordinary least squares SPSS stepwise method. In stepwise regression not all independent variables end up in the equation. In **Table 2**, the stepwise regression focuses on determining the best combination of demographic characteristics along with President's Obama's Community College Initiative (CCI) that predicts legislators' attitudes toward Community college funding. The demographic characteristics for the legislators comprised of educational attainment (56% had masters, doctorate or professional degrees), years of services (47% serviced more than seven years in the state legislation), age (47% were 51 years or older), gender (46% were female), income (75% earned $75,000 or more), race (62% were minorities), political party (84% were democratic) and occupation (86% work outside of the education field). More than half (55%) of the legislators have serviced since President Obama's Community College Initiative. Legislators as a whole had an average attitude (M = 71.70; SD = 15.981).

Table 2, Model 5 presents the best combination of demographic characteristics that predicts legislators' attitudes toward Community College Funding. The results indicate a $R^2 = .925$, which implies that 92.5% of legislators' attitude toward community college funding is explained by the regression model and that percent share explained is statistically significant [$(F(5,106) = 261.83$, $p < .001$]. Four of the seven demographic variables are statistically significant and include occupation [β = 23.199, $t(106) = 4.555$, $p < .01$], political party [β = 26.357, $t(106) = 5.581$, $p < .01$], age [β = 11.489, $t(106) = 2.950$, $p < .01$], and income [β = 17.486, $t(106) = 2.980$, $p < .01$] President Obama's Community and income College Initiative is also significant [β = 14.341, $t(106) = 3.579$, $p < .01$]. The results point out that if legislators are Democrats then their attitude toward community college funding is 26.4 points higher than if they are Republicans or Independents. Similarly, if legislators work in non-educational professions, earn 75,000 or plus, service more than seven years, or are older 51 than their attitude toward community college funding are 23.2, 17.5, or 11.5 points higher than if legislators work in the educational field, earn less $75,000, or are 50 years old or less, respectively. Bandura (1996) also found demographic characteristics such as ethnicity, age, income level and education (or class), and gender as major determinants of politicians behavior. As a final point, President Obama's Community College Initiative increases attitude toward community college funding by 14.3 points.

Information Sources

In **Table 3**, the stepwise regression focuses on determining the best combination of information sources that can be used to predict legislators' attitudes toward community college funding. To help make decision about educational policy, legislators used information from a variety of places including the governor's office (36% of the time), state higher education agency (62%), constituents & taxpayers (70%), business leaders (42%), other legislators (53%), advisors or experts (70%), media (33%), federal government (25%), national or regional organizations (58%), the state legislative audit, research & review board

Table 1.
Independent samples t-test for equality of mean funding attitudes—pre and post Obama Community College Initiative.

Group Statistics					
	Year	N	Mean	Std. Deviation	Std. Error Mean
Attitude toward Community College Funding (CCF)	Pre-Obama's Community College Initiative	50	66.67	15.649	2.213
	Post-Obama's Community College Initiative	60	75.89	15.137	1.954

Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Attitude toward Community College Funding (CCF)	Equal variances assumed	.048	.827	−3.133	108	.002	−9.222	2.943
	Equal variances not assumed			−3.124	103	.002	−9.222	2.952

Table 2.
Predicting attitudes toward community college funding with demographic characteristics[a,b].

		Unstandardized Coefficients			
	Model	β	Std. Error	t	Sig.
1	Occupation[c]	72.404	3.100	23.358	.000
2	Occupation[d]	39.923	4.515	8.843	.000
	Political Party	38.880	4.567	8.513	.000
3	Occupation[e]	37.360	4.331	8.626	.000
	Political Party	33.998	4.523	7.516	.000
	Age	15.069	4.091	3.683	.000
4	Occupation[f]	30.441	4.639	6.562	.000
	Political Party	32.853	4.341	7.568	.000
	Age	14.206	3.923	3.622	.000
	Obama_CCI	13.760	4.147	3.318	.001
5	Occupation[g]	23.199	5.093	4.555	.000
	Political Party	26.357	4.722	5.581	.000
	Age	11.489	3.894	2.950	.004
	Obama_CCI	14.341	4.007	3.579	.001
	Income	17.486	5.867	2.980	.004

Note: [a]Dependent variable: attitude toward community college funding. [b]Linear regression through the origin. [c]$R^2 = .832$, SEE = 30.213, $F(1,110) = 545.59$, $p < .001$. [d]$R^2 = .899$, SEE = 23.522, $F(2,109) = 486.28$, $p < .001$. [e]$R^2 = .910$, SEE = 22.274, $F(3,108) = 366.08$, $p < .001$. [f]$R^2 = .919$, SEE = 21.308, $F(4,107) = 302.76$, $p < .001$. [g]$R^2 = .925$, SEE = 20.564, $F(5,106) = 261.83$, $p < .001$.

Table 3.
Predicting attitudes toward community college funding with information sources[a,b].

		Unstandardized Coefficients			
	Model	β	Std. Error	t	Sig.
1	Advisors or Experts[c]	73.336	4.827	15.194	.000
2	Advisors or Experts[d]	51.359	4.361	11.777	.000
	Obama_CCI	44.445	4.847	9.169	.000
3	Advisors or Experts[e]	35.280	4.868	7.247	.000
	Obama_CCI	38.948	4.426	8.799	.000
	State Higher_Ed Agency	27.847	5.098	5.463	.000
4	Advisors or Experts[f]	32.093	4.759	6.744	.000
	Obama_CCI	37.963	4.247	8.939	.000
	State Higher_Ed Agency	24.032	5.014	4.793	.000
	Media	18.052	5.470	3.300	.001
5	Advisors or Experts[g]	26.333	5.091	5.172	.000
	Obama_CCI	37.472	4.131	9.071	.000
	State Higher_Ed Agency	16.287	5.652	2.882	.005
	Media	17.986	5.316	3.384	.001
	State Legislative Audit, Research or Review Board	15.405	5.696	2.705	.008

Note: [a]Dependent variable: attitude toward community college funding. [b]Linear regression through the origin. [c]$R^2 = .667$, SEE = 41.901, $F(1,110) = 230.853$, $p < .001$. [d]$R^2 = .818$, SEE = 31.627, $F(2,109) = 244.643$, $p < .001$. [e]$R^2 = .857$, SEE = 28.124, $F(3,108) = 216.196$, $p < .001$. [f]$R^2 = .870$, SEE = 26.918, $F(4,107) = 179.717$, $p < .001$. [g]$R^2 = .879$, SEE = 26.158, $F(5,106) = 153.723$, $p < .001$.

(65%) and faculty unions (24%).

Table 3, Model 5 presents the best blend of information sources that can be used to predict legislators' attitudes toward community college funding. The results indicate that $R^2 = .879$ which implies that 87.9% of legislators' attitude toward community college funding is explained by the regression model and that percent share explained is statistically significant [($F(5,106) = 153.723$, $p < .001$]. Four of the eleven information sources are statistically significant and include advisors or experts [β = 26.333, $t(106) = 5.172$, $p < .01$], state higher education agency [β = 16.287, $t(106) = 2.882$, $p < .01$], media [β =

17.989, $t(106) = 3.384$, $p < .01$] and the state legislative audit, research & review board [β = 15.405, $t(106) = 2.705$, $p < .01$]. President Obama's Community College Initiative is also significant [β = 37.472, $t(106) = 9.071$, $p < .01$]. The results show that legislators who obtain their information data from their advisor or experts in the field of education have more favorable attitudes toward community college funding by 26.3 points. Similarly, if legislators used information sources from the state higher education agency, the media or the state legislative audit, the research & review board increases their attitude toward community college funding by 16.287, 17.986, and 15.405

points, respectively. Along with the joint interaction of information sources, the Obama's Community College Initiative increases attitude toward community college funding by 37.472 points.

CCI, Demographics, & Information Sources

Table 4, Model 7 presents the best mix of demographic characteristics and information sources along with President's Obama's Community College Initiative that predicts legislators' attitudes toward Community College Funding. The results indicate that $R^2 = .933$ which implies that 93.3% of legislators' attitude toward community college funding is explained by the regression model and that percent share explained is statistically significant $[(F(7,104) = 205.973, p < .001]$. Four of the seven demographic variables are statistically significant and include occupation $[\beta = 15.709, t(104) = 2.925, p < .01]$, political party $[\beta = 21.719, t(104) = 4.546, p < .01]$, age $[\beta = 11.116, t(104) = 2.976, p < .01]$, and income $[\beta = 15.810, t(104) = 2.795, p < .01]$. Two of the eleven information sources are statistically significant. They include obtaining information from advisors or experts $[\beta = 10.985, t(104) = 2.603, p < .05]$ and the media $[\beta = 9.007, t(104) = 2.167, p < .05]$. President Obama's Community College Initiative is also significant $[\beta = 17.344, t(104) = 4.408, p < .01]$. The results indicate that if legislators obtain their information from advisors or experts, the media, work in non-educational fields, are 51 or older, are democratic or have incomes $75,000 & plus have more favorable attitudes toward community college funding. Along with the joint impact of information sources and demographics, the Obama's Community College Initiative increases attitude toward community college funding by 17.344 points.

Conclusion

This study adds to the literature on legislators' attitudes toward community college funding. As the United States pursues the national goals to add 5 million graduates by 2020, community college presidents, higher education groups, and government agencies must learn how to equip legislators with valuable and pertinent information to make sound decisions about community college funding. The study's outcome clearly suggests at the state level an upward shift in attitude toward community college funding once community colleges were made a priority at the federal government level. In short, President Obama's Community College Initiative has significantly increases legislators' attitude toward community college funding. The best demographic predictors of legislators attitudes we learned are occupation, political affiliation, age, and income. For information sources, the best predictors are obtaining materials from advisors or experts, the state higher education agency, media, and the state legislative audit, research and review board.

These key predictors of funding attitudes are markers that community college presidents can capitalize on to shape funding policies that impact their institutions. This proactive approach shared by Boswell (2004) in his study indicates that state policymakers must become better informed and base policy decisions on data rather than parochial political interests. Community college presidents can use their faculty to study issues unique to their institutions and inform legislators by writing white papers, holding webinars or seminars to address the gaps where low-level attitudes toward community college

Table 4.
Predicting attitudes toward community college funding with demographic characteristics and information sources[a,b].

	Model	Unstandardized Coefficients			
		B	Std. Error	t	Sig.
1	Occupation[c]	72.404	3.100	23.358	.000
2	Occupation[d]	39.923	4.515	8.843	.000
	Political Party	38.880	4.567	8.513	.000
3	Occupation[e]	37.360	4.331	8.626	.000
	Political Party	33.998	4.523	7.516	.000
	Age	15.069	4.091	3.683	.000
4	Occupation[f]	30.441	4.639	6.562	.000
	Political Party	32.853	4.341	7.568	.000
	Age	14.206	3.923	3.622	.000
	Obama_CCI	13.760	4.147	3.318	.001
5	Occupation[g]	23.199	5.093	4.555	.000
	Political Party	26.357	4.722	5.581	.000
	Age	11.489	3.894	2.950	.004
	Obama_CCI	14.341	4.007	3.579	.001
	Income	17.486	5.867	2.980	.004
6	Occupation[h]	17.730	5.381	3.295	.001
	Political Party	22.281	4.854	4.590	.000
	Age	10.845	3.799	2.855	.005
	Obama_CCI	16.376	3.978	4.117	.000
	Income	17.310	5.712	3.031	.003
	Advisors or Experts	11.235	4.293	2.617	.010
7	Occupation[i]	15.709	5.370	2.925	.004
	Political Party	21.719	4.778	4.546	.000
	Age	11.116	3.736	2.976	.004
	Obama_CCI	17.344	3.935	4.408	.000
	Income	15.810	5.656	2.795	.006
	Advisors or Experts	10.985	4.221	2.603	.011
	Media	9.007	4.156	2.167	.032

Note: [a]Dependent variable: attitude toward community college funding. [b]Linear regression through the origin. [c]$R^2 = .832$, SEE = 30.213, $F(1,110) = 545.588$, $p < .001$. [d]$R^2 = 899$, SEE = 23.522, $F(2,109) = 486.284$, $p < .001$. [e]$R^2 = .910$, SEE = 22.274, $F(3,108) = 366.081$, $p < .001$. [f]$R^2 = .919$, SEE = 21.308, $F(4,107) = 302.759$, $p < .001$. [g]$R^2 = .925$, $p < .001$. [h]$R^2 = .930$, SEE = 20.019, $F(6,105) = 231.371$, $p < .001$. [i]$R^2 = .933$, SEE = 19.676, $F(7,104) = 205.973$, $p < .001$.

funding exist. Katsinsa, Tollefson & Reamey (2007) document low-level attitudes toward community college funding by state. They reported that 20 of 34 states with funding formulas did not fully fund their community college. Sixteen states indicated a lack of capacity to serve the current and projected needs of high school graduates, and 14 states indicated a lack of capacity to serve older, returning adult students. Lack of appropriate funding is a major challenge for community colleges and addressing this problem must be done in a collaborative effort between college administrators, public officials, faculty, staff, and legislative liaisons to design data-driven strategies that

effectively target key attitude predictors to achieve required funding from their respective state legislators.

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