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This memo estimates the cost of two possible program designs for a statewide college scholarship program for the State of Illinois. These assumptions and associated cost estimates, once approved or revised, will form the basis for the next stage of this project, which is assessing the economic impact of tuition-free college in Illinois.

Our understanding of the Governor's interest in a tuition-free college program is that it be designed to promote both **equity** (enhanced access to post-secondary education or training for underrepresented groups, including low-income, African-American, and Hispanic students) and **affordability** (ensuring that Illinois' public higher ed institutions are priced competitively with surrounding states to diminish or reverse out-migration by four-year college students). Illinois faces a severe problem around out-migration of college students attending four-year institutions. While 96 percent of those students attending community college remain in state, only 51 percent of those attending four-year schools choose an Illinois institution (see Figure 1 below). Comparable rates for Michigan, Indiana, and Wisconsin are 92 percent, 91 percent, and 83 percent, respectively (data for Class of 2018 from the Federal Integrated Postsecondary Education Data System, or IPEDS).

Figure 1. Percent of collegegoers attending in and out of state, 2016-18 average

Illinois Post Secondary Attendance
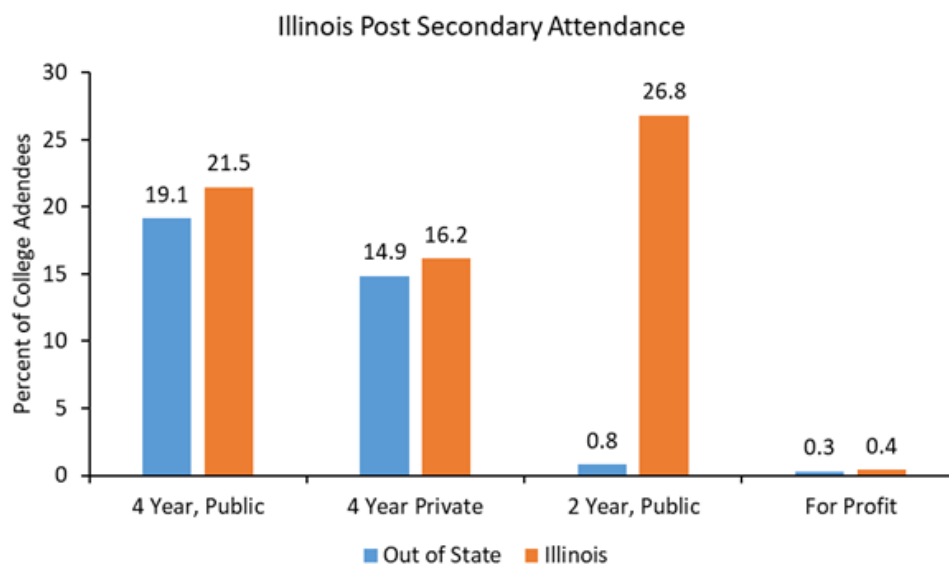
Two program designs are presented here. Option 1 limits attendance to public institutions offering two-year degrees while Option 2 includes two-year and four-year public institutions. For both program designs, we estimate both first- and last-dollar costs (see below).

I. Option 1. Tuition-free Community College

A. <u>Design elements</u>

1. *Who would be eligible?* The scholarship would be available to any state resident graduating from an Illinois high school (public, private, home-schooled).

2. *Where and for what could the scholarship be used?* The scholarship could be used at any of Illinois' 48 community colleges. Any course of study leading to an Associate degree or credit-bearing certificate or credential would be eligible. The scholarship would cover up to 60 credits. Students would be required to enroll directly after high-school graduation but could attend part-time. Use of the scholarship would be limited to four years after high-school graduation.

3. *How would the scholarship be structured?* We present estimates for both a first- and a last-dollar scholarship. In first-dollar programs, the scholarship is awarded before other forms of grant aid, allowing Pell-eligible students to retain use of their Pell grants and other grant aid to cover some living expenses. In last-dollar programs, Pell grants and other aid (such as Illinois's MAP grant) are applied first, with the proposed scholarship making up any remaining balance. If a last-dollar approach is chosen, the state could consider a "last dollar plus" model, where students whose tuition is fully covered by grant aid (i.e., low-income students) receive a stipend to help with additional expenses. Oregon and Virginia have both adopted this approach.

B. <u>Estimating number of eligible students</u>

The first step in preparing a cost estimate is to understand how many students would potentially be eligible for the scholarship. This requires assumptions about statewide K–12 enrollment trends and the expected number of high school graduates. For these data we rely on high-school enrollment projections for public and private students in Illinois provided by the Western Interstate Commission on Higher Education (WICHE). WICHE is one of the few sources that projects enrollment for both public and private schools, which is why this data source is used.

Table 1. Grade 1–12 enrollment projections for Illinois, 2020-2030

Grade	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
GK												
G01	132,319	133,684										
G02	133,540	131,649	133,003									
G03	136,466	134,799	132,882	134,246								
G04	138,225	134,902	133,256	131,365	132,716							
G05	143,300	138,142	134,816	133,170	131,284	132,634						
G06	148,600	143,939	138,750	135,407	133,759	131,866	133,220					
G07	152,168	148,340	143,688	138,509	135,174	133,528	131,637	132,989				
G08	149,446	151,622	147,803	143,166	138,009	134,687	133,045	131,161	132,508			
G09	162,365	161,927	164,246	160,124	155,121	149,534	145,926	144,145	142,106	143,568		
G10	159,305	156,473	156,066	158,296	154,310	149,490	144,110	140,634	138,916	136,950	138,359	
G11	145,795	147,159	144,669	144,343	146,388	142,652	138,200	133,243	130,034	128,441	126,618	127,922
G12	140,713	140,106	141,303	138,893	138,623	140,612	137,012	132,722	127,962	124,885	123,358	121,605

The WICHE projection shows a declining number of high-school seniors over the forecast period, probably due to demographic trends and out-migration. This downward trend is reflected in the cost estimates below.

C.   Projecting college-going patterns

The next step is to examine where current graduates attend college. Currently, approximately 18 percent of the state's high-school graduates enroll immediately after graduation at an Illinois community college. To create a base for our forecast, we used an enrollment rate of 22.5 percent, rather than 18 percent to mirror the enrollment patterns exhibited during the height of the Great Recession.

Beginning with the 22.5 percent rate, we project an increase of 25 percent in community college enrollment within two years of the introduction of the program. This sizable jump in enrollment is based on what happened when the Tennessee Promise was introduced. For forecast purposes, we assume attendance at all colleges increases proportionally in line with current enrollment.

Another important element in the forecast is understanding what percentage of first-year students can be expected to return for a second year. We use retention rates of 44.7 percent for part-time students and 66.2 percent for full-time students. These rates are based on a three-year, equally weighted average for community colleges in the state as reported by IPEDS.

These data yield the following projections for the rate (Table 2) and number (Table 3) of first-time, full-time Illinois residents who would enroll in a community college through the forecast period. This number declines over the ten-year forecast period due to the decline in the number of high-school graduates.

Table 2. Projected first-year community college enrollment, % of HS graduates

Class	2-year college
2021	25.5
2022	27.5
2023	28.4
2024	28.8
2025	28.9
2026	29.0
2027	29.0
2028	29.0
2029	29.0
2030	29.0

Table 3. Projected number of community college enrollees, part-time vs. full-time distribution

	Part Time	Full Time	Total
2021	21,923	12,118	34,041
2022	32,998	20,839	53,837
2023	38,692	21,710	60,401
2024	41,911	22,351	64,262
2025	41,967	22,317	64,284
2026	41,231	20,916	62,147
2027	40,049	20,225	60,274
2028	38,956	19,655	58,611
2029	38,220	19,329	57,550
2030	37,611	19,070	56,682

Some of the new community college enrollees will be students who would not otherwise have gone to college, while others are students who planned to attend four-year institutions but are induced by the scholarship to begin their education at a community college. In Tennessee, for example, enrollment at four-year institutions dropped by 3.8 percent in the initial year of the Tennessee Promise, then returned to its previous level the next year. The balance between these two groups does not directly influence the cost estimate although it can shape how much financial aid students are likely to receive and how much the scholarship needs to cover.

D. Projecting scholarship cost

The final step in the estimate concerns the last-dollar calculation. As noted above, last-dollar scholarships are awarded **after** students have received their grant aid. To complete this calculation, assumptions are needed about the projected cost of tuition. We take a weighted average of tuition increases over the previous three years across all eligible institutions. For the community college sector, this yields a 2 percent annual inflation rate for tuition and fees. We assume further that the maximum Pell grant will continue to provide full coverage of community college tuition costs over the forecast period.

Using the percentage of students receiving aid by institution, we calculate a per-student average cost for the entire group of scholarship recipients. We assume that the proportion of students receiving aid remains constant relative to current rates. The percentage of students who do not currently receive any financial aid—those for whom the scholarship program would pay full tuition and fees—is 66.3 percent, and it remains at that level through the forecast period.

Table 4. Cost estimate for two-year program

Class	Students	Last Dollar ($)		First Dollar ($)	
		Cost Per Student	Annual Cost	Cost Per Student	Annual Cost
2021	34,041	882	30,038,962	2,619	89,143,383
2022	54,200	930	50,429,157	2,761	149,653,165
2023	60,786	923	56,130,415	2,740	166,572,173
2024	64,659	931	60,167,503	2,761	178,552,603
2025	64,692	948	61,325,207	2,813	181,988,195
2026	62,147	952	59,186,008	2,826	175,639,925
2027	60,274	970	58,452,505	2,878	173,463,189
2028	58,611	988	57,925,248	2,933	171,898,504
2029	57,550	1,008	58,003,840	2,991	172,131,733
2030	56,682	1,028	58,264,596	3,050	172,905,551

To summarize, a last-dollar, community college-only program would cost $30 million in its first year, with annual costs rising to $58 million by the end of the forecast period. A first-dollar version of the same program would start at $89 million in year one, rising to $172 million by 2030. Costs increase steeply in the second year of the program as a second class of high-school seniors enter college. While the program may be designed to allow students to attend part-time and complete within four years, we have "frontloaded" the estimate, using the assumption that everyone eligible who decides to go to community college does so immediately after high-school graduation.

II.   Option 2. Tuition-Free Public Colleges and Universities (2-year and 4-year)

Two states include four-year colleges and universities in their Promise programs – New York State's Excelsior Scholarship, and Washington State's program that begins this fall. The Excelsior Scholarship has several requirements that make it unnecessarily complex and have limited scholarship uptake. The Washington College Grant is essentially a major expansion of the state's need-based grant with a new, secure form of funding and a higher income ceiling. This means that neither program has generated usable data on which to base a forecast, as Tennessee has for the two-year model. Instead, our estimate is informed by the experience of community-based free-college programs that offer four-year pathways, including the Kalamazoo Promise where degree completion rates rose by 10 percent over a six-year period, with most of the increase driven by bachelor's degrees.

The assumptions for a program covering both two-year and four-year public institutions in Illinois look similar to those for the community college-only program except for the universe of eligible institutions.

A. Design elements

1. *Who would be eligible?* The scholarship would be available to any state resident graduating from an Illinois high school (public, private, home-schooled).

2. *Where and for what could the scholarship be used?* This option adds the state's 12 public universities to the community colleges listed in Option 1. Degrees covered would include any credit-bearing credential or certificate, along with associate and bachelor's degrees. Most free-college programs set a credit unit cap, with the scholarship ending when the cap or a degree is earned, whichever comes first, or when the time frame for usage ends. Under the proposed program, students would be required to enroll directly after high-school. For purposes of the cost estimate we have assumed full-time enrollment and completion within four years, but program rules could be set to allow students to use their scholarship funds anytime within six years of high-school graduation.

3. *How would the scholarship be structured?* We present estimates for both a first- and a last-dollar scholarship.

The population of eligible students remains the same under both options, so we begin by projecting college enrollment patterns.

B. Projecting college-going patterns

For this estimate, we assume the following:

-   A 13 percent increase in community college attendance over three years, with enrollment rising 3 percentage points from the base rate of 22.5 percent (as in Option 1) to 25.5 percent.

- A 43 percent increase (from a very low base) in four-year, in-state, public university attendance over eight years, with enrollment rising 5.9 percentage points from the current rate of 13.6 percent to 19.5 percent. This aggressive rate of increase reflects both students who would previously have attended college out of state and those who would not have attended a four-year university at all. The 19.5 percent figure was chosen based on a calculation that moves Illinois' rate of in-state attendance at public, four-year institutions halfway to the rate of in-state attendance for surrounding states.

- Thirty-three percent of community college students would transfer to a four-year program, receive financial aid, and complete their degrees at the statewide average. This is in line with national community college transfer rates.

Table 5. Projected first-year attendance, % of HS graduates

Class	2-year college	4-year college
2021	23.9	14.4
2022	24.8	15.3
2023	25.2	16.1
2024	25.4	16.8
2025	25.5	17.4
2026	25.5	18.0
2027	25.5	18.5
2028	25.5	18.9
2029	25.5	19.2
2030	25.5	19.5

Table 6. Number of enrollees, 2-year and 4-year institutions

	Part Time	Full Time	Total
2021	39,782	11,350	51,131
2022	65,515	19,426	84,940
2023	91,792	19,757	111,549
2024	113,510	20,131	133,641
2025	116,841	20,031	136,872
2026	117,331	18,407	135,738
2027	116,500	17,790	134,290
2028	115,158	17,285	132,443
2029	114,205	16,997	131,202
2030	113,424	16,769	130,194

We also project a 5 percent increase in six-year degree completion for bachelor's degrees that would lead Illinois to more closely resemble surrounding states (Table 7). This assumption reflects both new financial resources that will enable some students to remain enrolled and the possible introduction of new support services to help guide students to degree completion.

Table 7. Graduation rate comparison

State	Graduation Rate
Iowa	72.3
Illinois +5	65.8
Michigan	64.6
Wisconsin	62.3
Illinois	60.8
Indiana	59.1

C.   Projecting scholarship cost

To estimate costs, we need to make an assumption about the rate of increase in tuition. We use the same rate of increase as in Option 1, although that assumption could be adjusted to include real rates of increase across all types of institutions.

For the last-dollar calculation, we also need to make an assumption about the value of financial aid over the forecast period. We use rates of financial aid that come from statewide averages (both for the percentage of students receiving aid and the amount of aid). We assume further that the value of financial aid increases at the same rate as tuition.

These assumptions yield the following costs:

Table 6. Cost estimate for two-year and four-year program

Class	Students	Last Dollar ($)		First Dollar ($)	
		Cost Per Student	Annual Cost	Cost Per Student	Annual Cost
2021	51,131	3,040	155,420,096	6,936	354,668,484
2022	84,940	3,310	281,135,971	7,506	637,574,959
2023	111,549	3,908	435,946,879	8,210	915,793,601
2024	133,641	4,290	573,375,318	8,777	1,172,901,539
2025	136,872	4,389	600,715,795	8,988	1,230,205,632
2026	135,738	4,490	609,473,599	9,216	1,250,903,597
2027	134,290	4,564	612,848,762	9,392	1,261,310,108
2028	132,443	4,625	612,508,333	9,527	1,261,794,687
2029	131,202	4,674	613,226,095	9,635	1,264,168,052
2030	130,194	4,720	614,566,395	9,735	1,267,424,369

To summarize, a last-dollar program covering both two-year and four-year public in-state institutions would cost $155 million in its first year, with annual costs rising to $615 million in 2030. A first-dollar program covering the same institutions would begin with annual costs of $354 million, with costs rising to almost $1.27 billion in 2030. Under both scenarios, costs rise steeply in years one through four as successive classes of high-school graduates enter the post-secondary sector. This estimate, too, is frontloaded, with all eligible students attending immediately after high school, enrolling full-time, and completing in four years.

III.   Risks to forecast

The ideal statewide free-college program benefits from secure and sustainable funding that will remain in place over a long period. This helps students, families, educators, and other stakeholders make decisions within a predictable framework. Obtaining a cost estimate is one step toward ensuring that such a secure funding stream is created.

However, all estimates contain risks, and some of the assumptions in this report may be incorrect. We have sought to be transparent about the decisions we have made, and throughout the report we highlight areas where data or assumptions are problematic. We summarize the most important risks here:

- A major area of uncertainty concerns the base numbers for forecasting enrollment. We only have data from past years to go on; however, pandemic-related unemployment may increase college attendance even beyond the post-2008 recession level, which is what we are using for community college attendance. Usually the effect of unemployment on college enrollment is relatively modest for the recent high-school graduate population, although it is large for the adult population. These numbers could be recalculated once Fall 2020 enrollment figures are available.
- Another area of uncertainty concerns tuition increases over the forecast period. Eligible institutions vary widely in terms of their costs, and it is difficult to arrive at an accurate projection for tuition increases across the universe of public, in-state post-secondary institutions. Because the student population potentially affected by this program is large, even small changes in tuition rates or student numbers can lead to large changes in costs. It is also important to note we have used in-district tuition rates as the basis for the cost estimate. If a significant number of recipients live outside the district of the community college they attend, they would pay higher, out-of-district rates, which could increase the cost of the program. (The program could include rules that students must attend their local community college or pay the difference in cost.)

- A third area of uncertainty concerns student behavior in response to the scholarship. The greatest uncertainty is in the four-year forecast. One reason is that we have no reliable data from other states on which to base our forecast as we do with the Tennessee Promise in relation to the two-year option. Another reason is that program cost will hinge on how many Illinois residents decide to remain in state for college –

something that is impossible to predict. Other student response impacts include behavior once in college – for example, retention rates might increase because students are better able to afford their education. On the other hand, a new group of students entering community college may be less prepared and more likely to require developmental coursework that could discourage them from continuing.

- A fourth area of uncertainty concerns whether the student body will change in terms of its likelihood of receiving grant aid. Our estimate holds constant the proportion of aid-eligible and aid-ineligible students. If these proportions shift, the last-dollar cost of either program will vary – more aid-eligible students will reduce cost to the state, while fewer aid-eligible students will increase it. It is difficult to predict how these proportions might change. For example, with higher numbers of students, institutional grant aid may be less widely available, and the costs to the state would rise. We also do not account for other costs colleges and universities might experience with an enrollment increase – for example, the marginal cost of adding classroom space, faculty, or housing/recreation facilities to accommodate more students.

- Awareness of and use of the scholarship will be strongly influenced by public messaging and outreach. Thus, enrollment numbers are dependent on what else the state chooses to do (and fund) in connection with the scholarship. Similarly, retention and graduation rates will depend on student support services available at post-secondary institutions. These support needs may be even more pressing with several classes of high-school graduates experiencing severe COVID-19-related disruptions to their final years of high school. Additional resources will be required to provide the necessary developmental coursework and non-academic supports if a new cohort of students is likely to be successful in degree or certificate attainment. Institutional capacity for accommodating new students and delivering these support services must also be considered.

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