

Executive Summary

As a group, the 14 schools that make up Pennsylvania's State System of Higher Education (hereafter the State System) are among Pennsylvania's great working-class colleges. Forty-one percent of State System students from 1999 to 2004 (far enough back that we can analyze how these students fare economically as adults in their thirties) came from families with incomes (pre-tax income at the household level) in the bottom 60% of households, those earning less than \$73,500 a year (in 2015 dollars). By comparison, just 18% of the students from Pennsylvania's 10 most elite private colleges during this period came from bottom 60% families.

Because of the State System's greater access for working families, its mobility rate – defined here as the share of all students who come from the bottom 60% of families AND then move into the top 40% of earners (total pre-tax individual earnings) as adults in their early thirties – is 22%, compared to just 14% for the top 10 elite private colleges.

Ordered from highest to lowest, the mobility rate at each of the State System schools is 29% at Cheyney University, 26% at Mansfield University, 25% at California University, 25% at Lock Haven University, 24% at Slippery Rock University, 24% at Indiana University, 23% at Clarion University, 23% at East Stroudsburg University, 22% at Bloomsburg University, 21% at Edinboro University, 21% at Shippensburg University, 19% at Millersville University, 18% at Kutztown University, and 18% at West Chester University.

Considered as a group, public colleges, including the State System, account for more than half (59%) of the total number of mobility “success stories” among Pennsylvania college students in 2002-04 – more than half the cases in which Pennsylvania college students from a bottom 60% family moved into the top 40% of earners as adults.

The power of public colleges like the State System to catapult working-class students into high-income jobs is under threat as a one third (32%) cut in inflation-adjusted state funding from 2000-01 to 2013-14 fueled an increase in inflation-adjusted tuition of 48% over the same period. This rising tuition has already reduced the flow of students from working families into the State System – 35% of the class of 2013 came from the bottom 60% families, down from 41% in the class of 2002.

Facing enrollment declines and budget pressures, the State System has warned of layoffs at the five schools with the largest share of enrollment coming from the bottom 60% of families: Cheyney (82% from bottom 60% of families), Mansfield (53%), California (50%), Clarion (48%), and Edinboro (48%). These schools draw the highest shares of students from working families because they draw heavily from rural regions or minority groups that have lower incomes on average. If these schools closed, the mobility rate for the State System as whole would fall further.

The State System should not abandon its historic mission as an engine of upward mobility by shrinking campuses most important to rural and urban working families. We will demonstrate in this and subsequent briefs that such a retreat would narrow access to economic opportunity for individual families and harm the economic regions within which most State System schools are embedded. In future work, we will explore in detail affordable ways of restoring access for working families to public

colleges by better leveraging federal funds, investing state funds raised in fair ways, and reinvigorating the commitment of State System schools to serve working families in their regions.

Reversing the decline in access to the State System will require new state revenues for public higher education in Pennsylvania. We have proposed that the state could raise at least \$2 billion in new revenues to support increased state funding for higher education and other state priorities through a plan that raises 88% of the revenue from the top 20% of families (those making more than \$104,000). In Pennsylvania, working families currently pay 30% more of their income in state and local taxes than the top 20% of families. Therefore, our proposal would raise most of its revenue from families who bear a much lighter tax burden and have benefited most from economic growth and past investments in public goods such as public higher education. Dedicating a portion of this revenue to fund increased state investment in public higher education, an institution which is an engine of upward mobility for working families, is a smart investment of public dollars.

The rest of this brief establishes the historic importance of State System schools to working families and the critical need to change course so that the State System and public universities remain “Pennsylvania’s Great Working-Class Colleges”

Introduction

Parents and students have long understood that education and training are an important pathway to opportunity. Those with a college degree on average enjoy a significant earnings premium and lower incidence of unemployment compared to those with only a high-school diploma.² New data released this January, *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*, make it possible for the first time to quantify the extent to which four-year colleges and universities in Pennsylvania provide a springboard for students from working-class families to become high-income adults.³

Mobility Report Cards derives from a unique database – including over 30 million college students from 1999-2013 – that links information on the incomes of college students’ families just before they enrolled in college with the earnings of those college students as adults in their early thirties.⁴ Traditional data from surveys of households only identify information from lots of different people at a single point in time – i.e., whether a college graduate earns more than a high-school graduate. The U.S. Department of Education’s College Score Card, another widely used source, identifies the adult earnings of graduates of specific institutions but provides a limited amount of information on where those students started out in life.

The analysis of upward mobility focuses on children born from 1980 to 1982. The researchers define the college each student attends as the college he or she attended for the most years in 1999-2004. They measure parents’ income as total pre-tax income at the household level when children were 15-19 years old. They measure children’s income as pre-tax individual earnings in 2014. Incomes are in 2015 dollars, adjusting for inflation using the consumer price index (CPI-U).

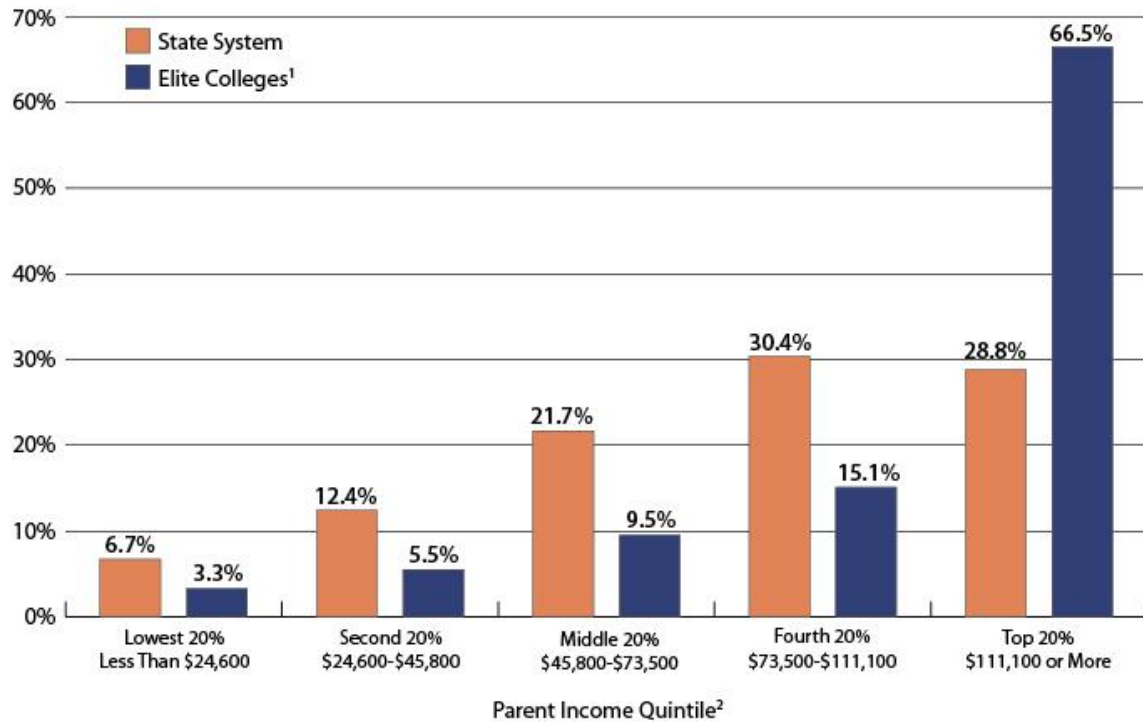
The new *Mobility Report Cards* let us compare the extent to which different four-year colleges in Pennsylvania provide access to low-, middle-, and high-income families. According to these new data, 41% of 2002-04 students from Pennsylvania’s State System of Higher Education (who were born in 1980-

82) came from households with incomes in the bottom 60% (those earning less than \$73,500 a year), in contrast to 18% of the students enrolled in in the 10 most elite colleges in the Commonwealth (Figure 1).⁵

Figure 1.

Students from Families Making Less Than \$73,500 Accounted for 41% of Enrollment in the State System Compared to Just 18% in Elite Colleges

Percent of Students (born in 1980-82 and attending college 1999-2004) by Household Income Quintile



¹ Figures here are an enrollment weighted average for 10 elite private universities and colleges including the University of Pennsylvania, Bryn Mawr College, Lehigh University, Carnegie Mellon University, Swarthmore College, Bucknell University, Villanova University, Franklin & Marshall College, Haverford College, and Lafayette College.
² The income thresholds by fifth (expressed in 2015 dollars) are based on total pre-tax household income thresholds estimated separately for the 1980, 1981, and 1982 birth cohorts when those children were 15-19.
 Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*; <http://www.equality-of-opportunity.org/college/>

Figure 1 also shows that while two-thirds of students from elite colleges come from the top 20% of families, more than two-thirds of students from State System schools (71%, based on summing the first four blue bars) come from the bottom 80%. Moreover, a high share of elite college students come from families with incomes in the top 1% (12% versus 0.5% in the State System). Given these stark differences in the income composition of their students, the next sections will show elite schools contribute significantly to helping children of high-income families themselves become high income – to realizing inequality of opportunity. By contrast, public colleges still play a major role in promoting the American Dream of equal opportunity.

Intergenerational Income Mobility in Pennsylvania Colleges and Universities

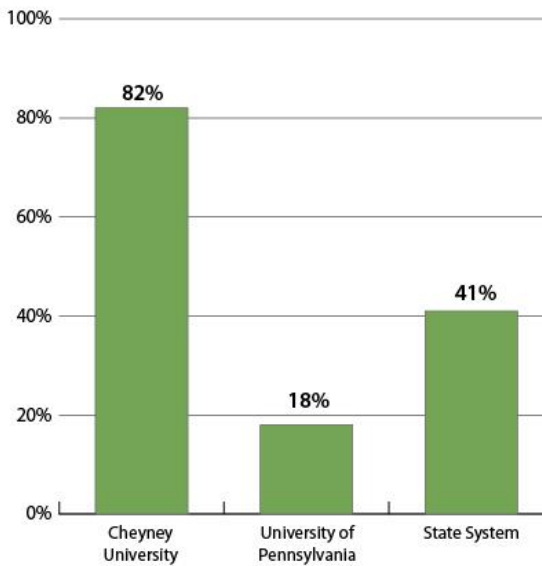
By linking the household incomes of students prior to their attending college to their individual incomes a decade or more after graduating, *Mobility Report Cards* assesses the success of individual colleges in propelling students from low- and middle-income families into jobs that provide high incomes relative to their peers.

To the right, we present three metrics from *Mobility Report Cards*, access (Figure 2), rate of success (Figure 3) and mobility rates (Figure 4). We use a specific example to help explain these metrics. We contrast Cheyney University, one of 14 State System schools and a historically black college, the University of Pennsylvania, an elite private college located in the City of Philadelphia, and the (weighted) average of each metric across all 14 schools in the State System.⁶

At Cheyney University, according to *Mobility Report Cards*, a substantially larger proportion of students come from low- and middle-income families – defined here as the proportion of college students from the bottom 60% of earners or families earning less than \$73,500 – than the University of Pennsylvania (82% versus 18%). Reflecting the privilege⁷ conferred by an ivy league education, 76% of University of Pennsylvania students from working-class families end up in the top 40% of individual earners as adults, for Cheyney this figure is 36%.⁸

Figure 2. Access
Percent of Students from Households with Bottom 60% Incomes

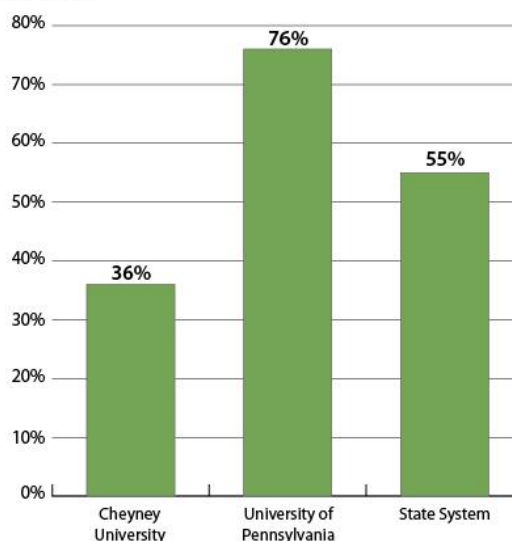
Includes children born in 1980-82 and attending college 1999-2004; household income measured when children were 15-19



Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*; <http://www.equality-of-opportunity.org/college/>.

Figure 3. Rate of Success
Of Students from Households with Bottom 60% Incomes, the Share with Top 40% Incomes as Adults

Includes children born in 1980-82 and attending college 1999-2004; household income measured when children were 15-19; adult income measured in 2014 (at age 32-34)



Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*; <http://www.equality-of-opportunity.org/college/>.

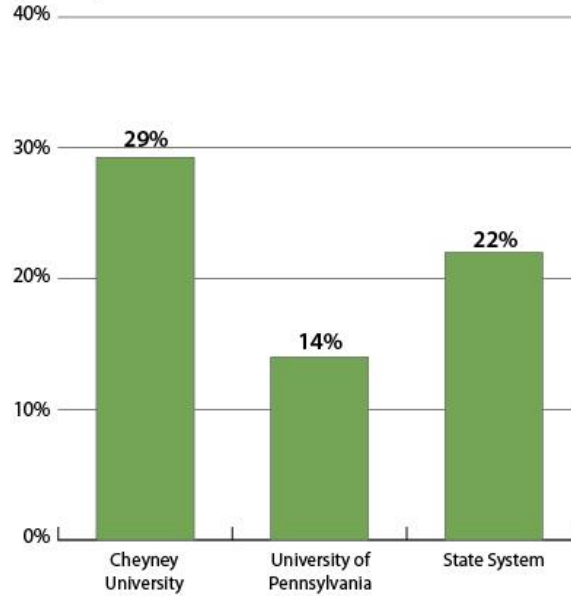
Combining these data on access (Figure 2) and success rates (Figure 3) provides a measure of the extent to which an institution catapults students from low-income families into a higher-income group as adults – a metric referred to as the mobility rate (Figure 4).⁹ The mobility rate equals the share of all students who come from families with an income in the bottom 60% and have an individual income in the top 40% (within their age cohort) by 32-34.

Although Cheyney’s success rate is lower than the University of Pennsylvania, its over four times greater access to working-class students results in a mobility rate (29.3%) twice as high as the University of Pennsylvania (14%). The material advantages of attending a private, ivy league college are substantial, but only a small share of its enrollment is open to families of modest means. Appropriately, it’s the public university, Cheyney, that provides relatively more access to upward mobility for low and middle-income families.

Figure 4. Mobility Rate

Of All Students, The Share Who Were from Bottom 60% Households and Had Top 40% Incomes as Adults

Includes children born in 1980-82 and attending college 1999-2004; household income measured when children were 15-19; adult income measured in 2014 (at age 32-34)



Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*; <http://www.equality-of-opportunity.org/college/>

Source: Keystone Research Center analysis *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility* <http://www.equality-of-opportunity.org/college/>

Figure 5 and Table 1 (next page) present the mobility rates for students in each of the 14 schools in the State System as well as for three other groups of public and private schools. On average across all the State System schools, the mobility rate is 22% compared to 13.7% at 10 elite high-cost private schools. A key driver of the better performance of State System schools as well as public universities in general in Pennsylvania is the accessibility of these schools for working-class families.

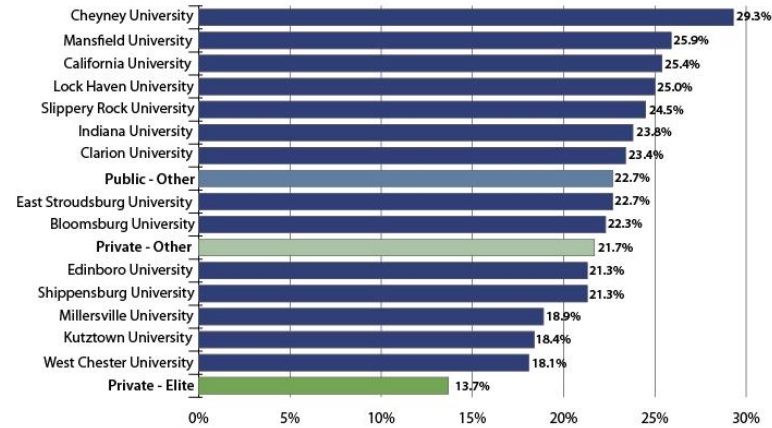
State System schools overall enroll a sizable share of students (41% on average across the 14 schools) from working-class families compared to elite colleges, at which just 18% of the students came from families in the bottom 60% of earners. High tuition (\$33,319 on average in 2000-01), a limited number of need-based scholarships and/or admissions practices reduce the capacity of elite colleges as a group to provide the kind of affordable opportunity for upward mobility that the schools in the State System provide to working-class families.¹⁰

As a group, public colleges (including state-related institutions) account for more than half (59%) of Pennsylvania college success stories among those attended college from 1999 to 2004 – more than half the college students from families with bottom-60% incomes who had an income in the top 40% (within their age cohort) by 32-34 (Figure 6).¹¹

Figure 5.

State System Schools Catapult More Working and Middle Class Students Into Higher Income Brackets as Adults Than Pennsylvania’s Most Elite Private Schools

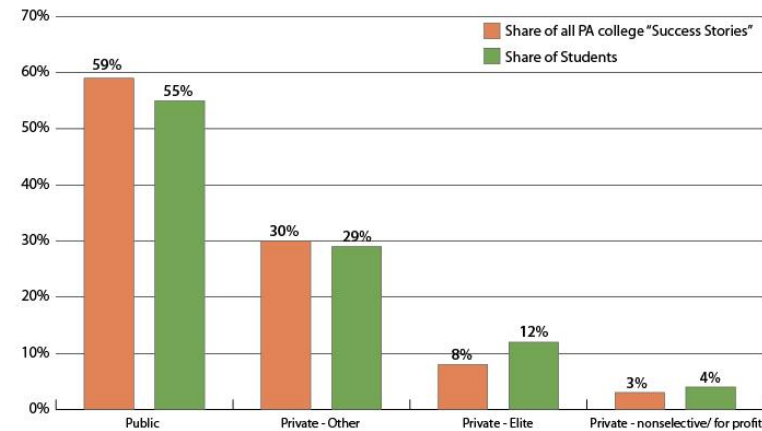
The share of all students at a given college who both came from a lower-income household (bottom 60%) and ended up in the top 40% of earners as adults.



Source: Keystone Research Center analysis of Mobility Report Cards: The Role of Colleges in Intergenerational Mobility; <http://www.equality-of-opportunity.org/college/>.

Figure 6.

Public Colleges Account for 59% of All Pennsylvania College “Success Stories” – i.e., 59% of All Students That Come from Bottom 60% Households and Have Top 40% Incomes by Age 32-34



Note: See Table 1 for a definition of the colleges in each group.
Source: Keystone Research Center analysis of Mobility Report Cards: The Role of Colleges in Intergenerational Mobility; <http://www.equality-of-opportunity.org/college/>.

Table 1.

The mobility rate or the share of all students who both came from a lower-income family (bottom 60%) and ended up in a higher-income family as adults (top 40%) by college or group of colleges

College/Group of Colleges	Access <i>Percent of Students from Households with Bottom 60% Incomes</i>	Success Rate <i>Percent of Previous Column in Top 40% [by age 32-34]</i>	Mobility Rate <i>Access times success Rate</i>	Sticker Price <i>Average Annual Cost of Attendance (Tuition + Fees) in 2000-01 (2015 dollars)</i>
Cheyney University	82%	36%	29%	\$6,121
Mansfield University	53%	49%	26%	\$6,560
State System - Under Threat ⁴	51%	47%	24%	\$6,565
California University	50%	51%	25%	\$6,795
Edinboro University	48%	44%	21%	\$6,289
Clarion University	48%	49%	23%	\$6,781
Indiana University	47%	51%	24%	\$6,355
Lock Haven University	47%	54%	25%	\$6,260
Slippery Rock University	44%	55%	24%	\$6,447
East Stroudsburg University	40%	57%	23%	\$6,494
Public - Other ¹	37%	61%	23%	\$9,450
State System - Rest ⁵	37%	58%	21%	\$6,431
Bloomsburg University	36%	62%	22%	\$6,425
Private - Other ²	35%	64%	22%	\$22,686
Shippensburg University	33%	64%	21%	\$6,532
Millersville University	32%	59%	19%	\$6,612
Kutztown University	32%	58%	18%	\$6,423
West Chester University	29%	63%	18%	\$6,373
Private - Elite ³	18%	75%	14%	\$33,319

¹ Figures here are an enrollment weighted average of mobility data from five public schools including the University of Pittsburgh, Lincoln University, Pennsylvania State University, Temple University, and the Pennsylvania College of Technology

² Figures here are an enrollment weighted average of mobility data for 54 private colleges and universities in Pennsylvania, see Table A6 for a complete list.

³ Figures here are an enrollment weighted average of mobility data from 10 elite private universities and colleges including the University of Pennsylvania, Bryn Mawr College, Lehigh University, Carnegie Mellon University, Swarthmore College, Bucknell University, Villanova University, Franklin & Marshall College, Haverford College, and Lafayette College.

⁴ California, Cheyney, Clarion, Edinboro, and Mansfield have been notified of potential layoffs.

⁵ Bloomsburg, East Stroudsburg, Indiana, Kutztown, Lock Haven, Millersville, Shippensburg, Slippery Rock, and West Chester

Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility* <http://www.equality-of-opportunity.org/college/>

Box 1. First Generation College Students

The analysis in *Mobility Report Cards* presents a precise measure based on household incomes of working families' access to four-year colleges in Pennsylvania. An alternative measure of access is the percentage of students who are the first generation in their family to attend college.

Table 2.

Percent First Generation College Students by College Type

College Type	2000-01	2014-15	Percentage Change
Private - Elite	16.4%	15.7%	-4%
Private - Other	39.5%	30.0%	-24%
State System	47.0%	36.2%	-23%
Public - Other	39.9%	29.1%	-27%

Note: See Table A5 for details on the colleges in each school type.

Source: Keystone Research Center analysis of College Scorecard data <https://collegescorecard.ed.gov/>

Foreshadowing the next section, in which we analyze the change in access to Pennsylvania colleges by household income, we observe a decline in first generation college students attending Pennsylvania's colleges and universities between 2000-01 and 2014-15. Each type of college (private and public) has seen a decline in first generation college students, with the greatest decline (27%) seen in public colleges outside the State System. For the State System, in 2000-01, 47% of students were first generation students; by 2014-15 that figure had fallen to 36%. However, State System schools have been, and continue to educate the highest percentage of first generation college students among its peers.

Choking Off Upward Mobility in Pennsylvania

Mobility Report Cards tracks the adult (age 32 to 34) earnings in 2014 of students that attended Pennsylvania colleges and universities from 1999 to 2004. When those students went to college, tuition had already risen significantly since the 1980s – but the cost was still modest compared to the incomes of the middle class.¹²

Students entering the State System in 2013-14 paid tuition of \$9,561, 48% over its level at the turn of the century (Table 3), in part because the state appropriation had fallen 32%.¹³ Median household incomes in Pennsylvania between 1999-01 and 2012-14 were down 4%. With state support down, tuition up, and incomes down, it is no surprise that inflation-adjusted median student debt for State System students climbed 22% from 2000-01 to 2013-14, reaching \$26,191 (See Table A1 in the Appendix for more details on student debt).

Figure 7 (next page) and Table 4 illustrate how these trends have reduced access for working-class children to the State System: the share of students from families with incomes in the bottom 60% fell from 41% for the class of 2002 (i.e., born in 1980) to 35% for college students in the class of 2013 (i.e., born in 1991, the last birth cohort currently available from the *Mobility Score Cards*) – a decline of 15%.

More troubling still, most of this decline took place in the past four years for which we have data – i.e., since the Great Recession.

Access for the bottom 60% to every other group of colleges shown in Figure 7 is down even more than it is at the State System. For example, the bottom 60% share at elite colleges is down 18% (see Table 4) from a lower starting point, although recent efforts to expand access to low-income students at elite colleges have led to some improvement.

It will be another decade before mobility rates for the class of 2013 are available (they will not be age 32 until 2023). If this cohort is propelled up to the top 40% at the same rate as those who attended college between 1999 and 2004, the overall mobility rate will fall 12% (because of the drop in the share of students from bottom 60% families who can afford to enroll in the state system).¹⁴ Declining state support, rising tuition, and stagnating family incomes are choking off access to upward mobility for

Table 3.

Change in Average Annual Cost of Attendance (Tuition + Fees) between 2000-01 and 2013-14 (2015 dollars) in Pennsylvania Colleges

School Type	2000-01	2013-14	Percent Change
Private - Elite	\$33,319	\$47,922	44%
Private - Other	\$22,686	\$35,205	55%
State System	\$6,464	\$9,561	48%
Public - Other	\$9,450	\$16,140	71%

Note: See Table A2 for details on the colleges in each school type.

Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*
<http://www.equality-of-opportunity.org/college/>

Table 4.

Percent of Students in Pennsylvania Colleges Born in 1980 and 1991 Whose Parents Were in Bottom 60% of Earners

School Type	1980 Cohort	1991 Cohort	Percentage Change
Private - Elite	19%	16%	-18%
Private - Other	36%	28%	-20%
State System	41%	35%	-15%
Public - Other	39%	30%	-23%

Note: See Table A2 for details on the colleges in each school type.

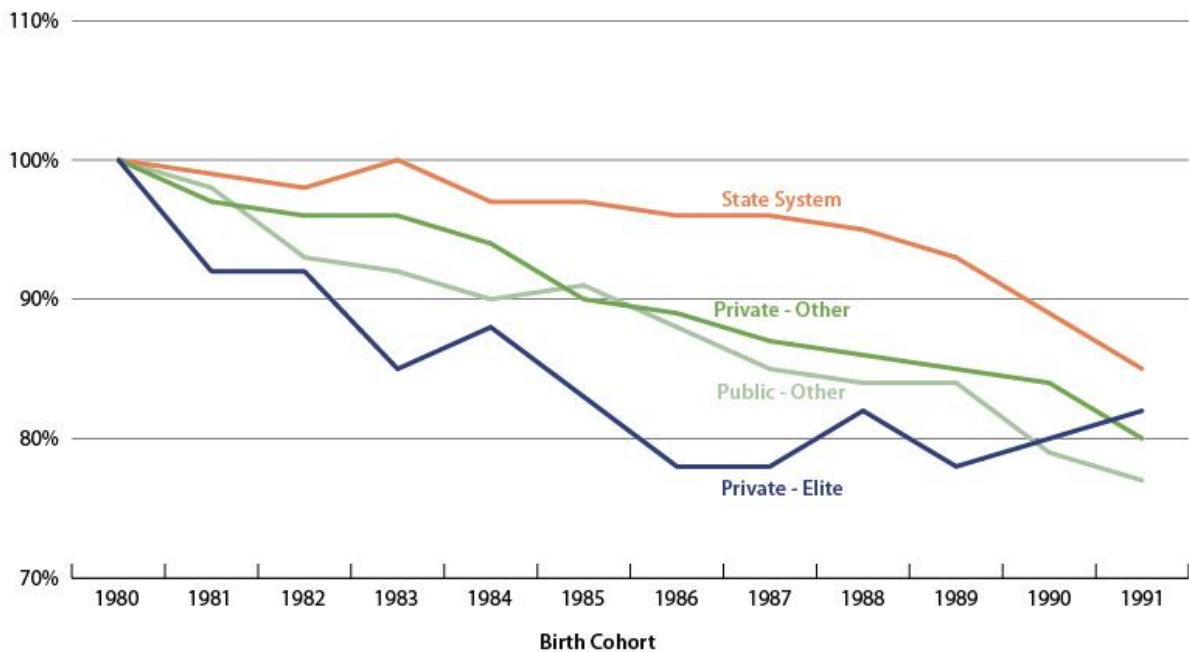
Source: Keystone Research Center analysis *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*
<http://www.equality-of-opportunity.org/college/>

Pennsylvania families. Recently, under budget pressures, the State System has warned of layoffs at the five schools with the largest share of enrollment coming from the bottom 60% of families: Cheyney (82% from bottom 60% of families), Mansfield (53%), California (50%), Clarion (48%), and Edinboro (48%). The mobility rate in these five schools is 24%; closing them would reduce the mobility rate of the State System to 18%, a decline of 25%.¹⁵

Figure 7.

The Share of State System Students from Households with Bottom 60% Incomes Has Fallen 15%

Percent of Students from Households with Bottom 60% Incomes by Birth Year (indexed to 1980 percent of graduates from bottom 60% households = 100)



Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*; <http://www.equality-of-opportunity.org/college/>

Box 2. Working Low-wage Jobs Won't Cover College Costs Anymore

There is a long tradition among students from families of modest means of paying for college partly by working over the summer at low-wage jobs. With the cost of college rising, but the minimum wage stuck in inflation-adjusted terms, students can no longer pay for as much of college this way. In 1983, the minimum wage in Pennsylvania equaled \$7.37 per hour (in 2015 dollars). Working 12 weeks in the summer at 40 hours per week a minimum wage worker would have made \$3,640, slightly more than resident tuition at a college in State System (\$3,258). Fast forward to 2015, a college student earning the minimum wage over the summer would bring home \$3,480, a figure less than half the \$7,060 needed just to cover tuition in that year.

Conclusion

A key element of the American Dream is for parents to be able to extend to their children more economic opportunity than they had growing up. The *Mobility Report Cards* quantify the extent to which colleges in Pennsylvania facilitate this aspiration for working families. As we have seen, the 14 colleges in the State System of Higher Education, as well as public colleges in general, provide substantially greater access to families with incomes that rank them among the bottom 60% of earners.

Rising tuition and declining state support are choking off access for working and middle class families to the upward mobility the State System offers, particularly in just the last few years. The disinvestment by the state in public higher education in Pennsylvania will continue unless policymakers raise new revenues for the purpose of expanding access to higher education to working families.

State tax collections are falling short of expenditures due to a combination of falling corporate taxes, and a greying population that is reducing personal income tax and sales tax collections, while increasing the demand for state services. The state is expected to begin each of the next several budget years spending \$2 billion more than it has in revenues. As each state budget must be balanced, policymakers will have to reduce state spending to match available revenues. It is therefore highly unlikely that sufficient new state spending directed at higher education can be made available absent the state raising additional revenue.

We have proposed that the state could raise at least \$2 billion in new revenues to support increased state funding for higher education and other state priorities through a plan that lowers the personal income tax rate to 2.8% (down from 3.07%) on wage and interest income while increasing the personal income tax rate 6.5% (up from 3.07%) on all classes of income other than wages and interest.¹⁶ The advantage of this proposal is it raises 88% of the revenue from the top 20% of families (those making more than \$104,000). With working families – the bottom 60% – already paying 30% more of their income in state and local taxes than the top 20% of families, our proposal seeks to raise revenue from the families who bear a much lighter tax burden and have also benefited most from recent economic growth¹⁷ and past investments in public goods like public higher education.¹⁸ Dedicating a portion of this revenue to fund increased state investment in public higher education, an institution that, as we have seen here, is a highly successful engine of upward mobility for low and middle income families, is a smart investment in promoting the American Dream in Pennsylvania.

The State System should not continue to abandon its historic mission as an engine of upward mobility by shrinking campuses most important to rural and urban working families. As future briefs will document, such a retreat would also compromise the future for the economic regions within which most State System schools are embedded, and, indeed, for Pennsylvania as a whole.

The 1947 Truman Commission on higher education wrote 70 years ago, “The democratic community cannot tolerate a society based on education for the well-to-do alone. If college opportunities are restricted to those in the higher income brackets, the way is open to the creation and perpetuation of a class society which has no place in the American way of life.”¹⁹

In the end, once you recognize the stakes, for the State System to further abandon its historic commitment to working families is no choice at all. Pennsylvania must reinvigorate its great working-class colleges.

Appendix:

Table A1.

The median debt for Pennsylvania students who have completed, 2000-01 and 2013-14 (2015 dollars)

College Type	2000-01	2013-14	Percent Change
Private - Elite	\$22,420	\$23,556	5%
Private - Other	\$22,594	\$26,767	18%
State System	\$21,459	\$26,191	22%
Public - Other	\$19,952	\$27,007	35%

Note: See Table A2 for details on the colleges in each school type.

Source: Keystone Research Center analysis of College Scorecard data

<https://collegescorecard.ed.gov/>

Table A2.

The share of all students who both came from a lower-income family (bottom 60%) and ended up as higher-income adults (top 40%) by College Type (sample limited to 4-year institutions)

College Type	Access <i>Percent of Students from Households with Bottom 60% Incomes</i>	Success Rate <i>Percent of Previous Column in Top 40% [by age 32-34]</i>	Mobility Rate <i>Access times success Rate</i>	Sticker Price <i>Average Annual Cost of Attendance (Tuition + Fees) in 2000-01 (2015 dollars)</i>
<i>All Private</i>	31.0%	65.5%	19.3%	\$25,019
Private - Elite ¹	18.4%	74.7%	13.7%	\$33,319
Private - Other ²	34.8%	63.7%	21.7%	\$22,251
Private - nonsele/for profit ³	50.4%	35.5%	17.7%	\$18,583
<i>All Public</i>	38.8%	58.6%	22.4%	\$8,240
Public - Other ⁴	37.4%	60.8%	22.7%	\$9,450
Public - State System	40.8%	55.3%	22.0%	\$6,464
State System - Under Threat ⁵	51.2%	47.2%	24.0%	\$6,565
State System - Rest ⁶	37.3%	58.0%	21.4%	\$6,431

¹Figures here are an enrollment weighted average of mobility data from 10 elite private universities and colleges including the University of Pennsylvania, Bryn Mawr College, Lehigh University, Carnegie Mellon University, Swarthmore College, Bucknell University, Villanova University, Franklin & Marshall College, Haverford College, and Lafayette College.

² Figures here are an enrollment weighted average of mobility data for 54 private colleges and universities in Pennsylvania, see Table A6 for a complete list.

³ Figures here include an enrollment weighted average of mobility data from four nonselective not for profit colleges (Baptist Bible College of Pennsylvania, Lancaster Bible College, University of The Arts and Valley Forge Christian College) and five for profit colleges (Central Penn College, Art Institute of Pittsburgh, Art Institute of Philadelphia, Art Institute of York - Pennsylvania, Walnut Hill College).

⁴Figures here are an enrollment weighted average of mobility data from five public schools including the University of Pittsburgh, Lincoln University, Pennsylvania State University, Temple University, and the Pennsylvania College of Technology.

⁵ California, Cheyney, Clarion, Edinboro, and Mansfield have been notified of potential layoffs.

⁶ Bloomsburg, East Stroudsburg, Indiana, Kutztown, Lock Haven, Millersville, Shippensburg, Slippery Rock, and West Chester

Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*
<http://www.equality-of-opportunity.org/college/>

Table A3.

The share of all students who both came from the bottom 40% of families and ended up in in top 40% as adults by College Type (sample limited to 4-year institutions)

College Type	Access <i>Percent of Students from Households with Bottom 40% Incomes</i>	Success Rate <i>Percent of Previous Column in Top 40% [by age 32-34]</i>	Mobility Rate <i>Access times success Rate</i>
<i>All Private</i>	14.8%	62.7%	8.7%
Private - Elite	8.9%	72.8%	6.4%
Private - Other	16.4%	60.7%	9.6%
Private - nonsele/for profit	26.5%	32.7%	8.6%
<i>All Public</i>	18.8%	55.8%	10.3%
Public - Other	18.6%	58.0%	10.8%
Public - State System	19.1%	52.6%	9.7%

Note: See Table A2 for details on the colleges in each college type.

Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility* <http://www.equality-of-opportunity.org/college/>

Table A4.

The share of all students who both came from a lower-income family (bottom 60%) and ended up as higher-income adults (top 40%) for 10 elite private Pennsylvania colleges

Colleges	Access <i>Percent of Students from Households with Bottom 60% Incomes</i>	Success Rate <i>Percent of Previous Column in Top 40% [by age 32-34]</i>	Mobility Rate <i>Access times success Rate</i>	Sticker Price <i>Average Annual Cost of Attendance (Tuition + Fees) in 2000-01 (2015 dollars)</i>
Bryn Mawr College	26%	59%	16%	\$33,253
Bucknell University	19%	73%	14%	\$32,811
Carnegie Mellon University	21%	70%	15%	\$34,123
Franklin & Marshall College	16%	66%	10%	\$34,225
Haverford College	20%	69%	14%	\$34,326
Lafayette College	16%	80%	12%	\$32,821
Lehigh University	21%	79%	16%	\$33,033
Swarthmore College	23%	71%	16%	\$34,684
University of Pennsylvania	18%	76%	14%	\$34,643
Villanova University	15%	77%	11%	\$29,757

Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility* <http://www.equality-of-opportunity.org/college/>

Table A5.

The share of all students who both came from a lower-income family (bottom 60%) and ended up as higher-income adults (top 40%) for all 19 highly selective and selective public 4-year colleges in Pennsylvania

Colleges	Access	Success Rate	Mobility Rate	Sticker Price
	<i>Percent of Students from Households with Bottom 60% Incomes</i>	<i>Percent of Previous Column in Top 40% [by age 32-34]</i>	<i>Access times success Rate</i>	<i>Average Annual Cost of Attendance (Tuition + Fees) in 2000-01 (2015 dollars)</i>
Bloomsburg University	36%	62%	22%	\$6,425
California University	50%	51%	25%	\$6,795
Cheyney University	82%	36%	29%	\$6,121
Clarion University	48%	49%	23%	\$6,781
East Stroudsburg University	40%	57%	23%	\$6,494
Edinboro University	48%	44%	21%	\$6,289
Indiana University	47%	51%	24%	\$6,355
Kutztown University	32%	58%	18%	\$6,423
Lincoln University	72%	50%	36%	\$6,918
Lock Haven University	47%	54%	25%	\$6,260
Mansfield University	53%	49%	26%	\$6,560
Millersville University	32%	59%	19%	\$6,612
PA College Of Technology	51%	53%	27%	\$10,215
Pennsylvania State University	34%	60%	20%	\$9,342
Shippensburg University	33%	64%	21%	\$6,532
Slippery Rock University	44%	55%	24%	\$6,447
Temple University	44%	63%	28%	\$9,563
University of Pittsburgh	36%	62%	22%	\$9,612
West Chester University	29%	63%	18%	\$6,373

Source: Keystone Research Center analysis of *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*
<http://www.equality-of-opportunity.org/college/>

Table A6.

The share of all students who both came from a lower-income family (bottom 60%) and ended up as higher-income adults (top 40%) for 54 highly selective and selective private 4-year colleges

Colleges	Access	Success Rate	Mobility Rate	Sticker Price
	<i>Percent of Students from Households with Bottom 60% Incomes</i>	<i>Percent of Previous Column in Top 40% [by age 32-34]</i>	<i>Access times success Rate</i>	<i>Average Annual Cost of Attendance (Tuition + Fees) in 2000-01 (2015 dollars)</i>
Albright College	38%	60%	23%	\$27,954
Allegheny College	28%	68%	19%	\$29,688
Alvernia University	42%	58%	24%	\$18,168
Arcadia University	34%	63%	22%	\$24,541
Cabrini College	33%	65%	22%	\$23,261
Cairn University	45%	38%	17%	\$14,252
Carlow University	55%	48%	27%	\$18,363
Chatham University	51%	46%	23%	\$25,099
Chestnut Hill College	51%	55%	28%	\$23,123
Delaware Valley College of Sci. & Ag.	37%	60%	22%	\$22,980
DeSales University	28%	63%	18%	\$20,356
Dickinson College	19%	69%	13%	\$33,652
Duquesne University	27%	70%	19%	\$22,738
Eastern University	35%	43%	15%	\$20,095
Elizabethtown College	28%	69%	20%	NA
Gannon University	42%	61%	26%	\$19,423
Geneva College	46%	48%	22%	\$18,347
Gettysburg College	19%	68%	13%	\$34,237
Gwynedd Mercy University	35%	69%	24%	\$20,164
Holy Family University	41%	63%	25%	\$17,562
Immaculata University	32%	57%	18%	\$19,200
Juniata College	33%	70%	23%	\$26,646
Keystone College	62%	37%	23%	\$16,662

Table A6 (cont).

The mobility rate in 54 highly selective and selective private 4-year colleges

Colleges	Access <i>Percent of Students Whose Parents Were in Bottom 60% of Earners</i>	Success Rate <i>Percent of Previous Column in Top 40% [by age 32-34]</i>	Mobility Rate <i>Access times success Rate</i>	Sticker Price <i>Average Annual Cost of Attendance (Tuition + Fees) in 2000-01 (2015 dollars)</i>
King's College of Wilkes-Barre, PA	37%	68%	25%	\$22,985
La Roche College	45%	53%	24%	\$16,516
La Salle University	28%	72%	20%	\$25,325
Lebanon Valley College	30%	63%	19%	\$25,353
Lycoming College	38%	63%	24%	\$25,215
Marywood University	43%	53%	23%	\$21,329
Drexel University	36%	71%	26%	\$23,215
Mercyhurst University	38%	50%	19%	\$19,737
Messiah College	27%	67%	18%	\$22,201
Misericordia University	42%	66%	28%	\$22,036
Moravian College	31%	68%	21%	\$26,701
Mount Aloysius College	65%	55%	35%	\$17,315
Muhlenberg College	13%	67%	9%	\$28,972
Neumann University	43%	55%	24%	\$19,710
Philadelphia University	32%	64%	21%	\$21,276
Point Park University	46%	48%	22%	\$17,887
Robert Morris University	41%	62%	25%	\$13,810
Saint Francis University	45%	70%	31%	\$21,758
Saint Joseph's University	15%	69%	10%	\$27,589
Saint Vincent College & Seminary	38%	67%	25%	\$21,720
Seton Hill University	58%	42%	24%	\$20,955
Susquehanna University	26%	68%	18%	\$28,133
Thiel College	54%	49%	26%	\$15,779
University of Scranton	23%	73%	17%	\$25,683
University of The Sciences in Phila.	38%	82%	31%	\$22,203
Ursinus College	27%	71%	19%	\$29,399
Washington And Jefferson College	30%	72%	22%	\$27,046
Waynesburg University	50%	57%	29%	\$16,448
Westminster College of New Wilmington, PA	37%	66%	24%	\$23,378
Widener University	35%	67%	23%	\$22,665
Wilkes University	43%	69%	29%	\$23,701

Source: Keystone Research Center analysis of Mobility Report Cards: The Role of Colleges in Intergenerational Mobility
<http://www.equality-of-opportunity.org/college/>

¹ Mark Price is a labor economist at the Keystone Research Center. The author thanks Diana Polson, Christopher Dunne, John Neurohr, Marc Stier, Stephen Herzenberg and Stephanie Frank for their assistance. This work also would not have been possible without the careful and well documented work of Raj Chetty, John N. Friedman, Emmanuel Saez, Nicholas Turner and Danny Yagan which is available online at <http://www.equality-of-opportunity.org/college/>

² See Stephen Herzenberg, Mark Price and Michael Wood, *A Must-Have for Pennsylvania Part Two: Investment in Higher Education for Growth and Opportunity*, Keystone Research Center and Pennsylvania Budget and Policy Center, October 2014, <https://goo.gl/16JSs2>

³ Raj Chetty, John N. Friedman, Emmanuel Saez, Nicholas Turner and Danny Yagan. *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*, January 2017, <https://goo.gl/4dvHm6>

⁴ Unless stated otherwise, we present throughout this report information on the incomes of parents and the earnings of their adult children who attended college between the age of 19 and 22 from 1999 to 2004 (specifically children born in 1980, 1981 and 1982). The adult earnings of these children were measured in 2014, when they were between the ages of 32 and 34. The earnings of parents were averaged over the period when their children were between the ages of 12 and 17 years of age.

⁵ This group includes the University of Pennsylvania, Bryn Mawr College, Lehigh University, Carnegie Mellon University, Swarthmore College, Bucknell University, Villanova University, Franklin & Marshall College, Haverford College, and Lafayette College.

⁶ Unless specified otherwise, we estimate averages for metrics across groups of schools (such as the State System or Elite Private schools) by weighting the metric for each school in the group by its share of total group enrollment in 2000-01.

⁷ Analysis of the income data in the *Mobility Report Cards* without reference to college attendance reveals that the higher the family income of your parents the higher your income relative to your peers will be as an adult. Specifically, children from the highest income families end up 29 percentiles higher in the income distribution relative to the children from the poorest families. When the specific college a child attended is introduced into the analysis of the intergenerational income mobility, the link between the relative income of parents and the adult incomes of their children is broken. That is, children from low- and high-income families that end up enrolled in the same college have similar earnings as adults. In this way admission to an elite college for a young adult from a working or middle class family is truly a golden ticket to a lifetime of opportunity for them and eventually their own children. The role of public colleges is to overcome the limited supply of these golden tickets by creating another path to upward income mobility open to more young adults.

⁸ The threshold for an individual entering the top 40% of earners (pre-tax individual earnings) between the ages 32 and 34 in 2014 was \$35,200. In body of the paper we discuss parental family income (pre-tax household earnings) and the individual earnings of their adult children. The authors of the *Mobility Report Cards* also measure the pre-tax household income of adult children (summing the pre-tax or adjusted gross income of all household members). The threshold for entering the top 40% for this same age group based on this alternative definition of income was \$51,900.

⁹ In *Mobility Report Cards* itself, the term “mobility rate” describes the share of graduates who both come from families with bottom 20% incomes AND reach the top 20% of individual earners by their early thirties. The *New York Times* (<https://goo.gl/pnuA7S>) broadens the term mobility rates to mean the share of graduates who both come from families with bottom 40% incomes AND reach the top 40% of individual earners by their early thirties (see Table A3 in the Appendix). We broaden the term further to mean the share of graduates who both come from families with bottom 60% incomes AND reach the top 40% of individual earners by their early thirties.

¹⁰ Some elite colleges say that they have “aid-blind admissions” with no limit on needs-based scholarships. The empirical reality is that less than a fifth of graduates from the top 10 elite schools in Pennsylvania come from families with bottom 60% incomes.

¹¹ The State System by itself accounts for 24% of the total Pennsylvania college enrollment and 26% of the upward mobility (movement from bottom 60% to top 40%). As a group, all other public colleges account for 31% of enrollment and 33% of the success stories. Adult incomes continue to rise after the early thirties but, on average,

individuals' ranks – or position in the income distribution -- relative to their peers of the same age remain relatively stable as they age.

¹² The *Mobility Report Cards* focuses on students who first enrolled in the state system between 1999 and 2001. Adjusting for inflation, tuition between 1983-84 and 2000-01 increased from \$3,350 to \$5,219 an increase of 56%. Over the same period the state appropriations to the State System increased by \$88 million or 17%.

¹³ Adjusting for inflation the state appropriation for the State System fell \$200 million between 2000-01 and 2013-14.

¹⁴ This assumes the success rate (percentage of students from families with incomes in the bottom 60% that end up in the top 40% of earners as adults) in the state system is unchanged at 55%.

¹⁵ For the 1991 cohort the share of students from the bottom 60% in the nine remaining State System schools (Bloomsburg University, East Stroudsburg University, Indiana University, Kutztown University, Lock Haven University, Millersville University, Shippensburg University, Slippery Rock University, and West Chester University) was 31%, much lower than the 47% in the schools threatened with layoffs. The success rate for these schools for students enrolled between 1999 and 2004 was 58%, assuming this success rate is unchanged this yields a mobility rate of 18% which is 25% below the 24% mobility rate for the five threatened schools between 1999 and 2004 (See Table A3).

¹⁶ Marc Stier, "A Fair Share Tax to Support Public Investment in Pennsylvania", Pennsylvania Budget and Policy Center, March 2017, <https://goo.gl/ZROgzT>

¹⁷ For a summary of income trends among the top 1% of families in Pennsylvania and the rest of the country see Estelle Sommeiller, Mark Price, and Ellis Wazeter, *Income Inequality in the U.S. by state, metropolitan area, and county*, Economic Policy Institute, June 2016, <http://www.epi.org/publication/income-inequality-in-the-us/>

¹⁸ Institute on Taxation and Economic Policy <http://www.itep.org/whopays/states/pennsylvania.php>

¹⁹ President's Commission on Higher Education, *Higher Education for American Democracy*, Vols. 1-6. Washington, DC: Government Printing Office, p. 2:23. As cited in Sara Goldrick-Rab, *Paying the Price: Colleges Costs, Financial Aid, and the Betrayal of the American Dream*. University of Chicago Press. Chicago and London, p. 22.