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Lumina Foundation
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Goal 2025:

To increase the proportion of Americans with high-quality degrees and credentials to 60 percent by the year 2025.
Who wants change?

Who wants to change?
Changing the Leadership Dynamic

“[We need to] change our ways of framing the task of increasing diversity in higher education. It’s not about plucking the exceptional survivors from our fractured landscape where opportunity is reserved for a select few. It’s about changing the opportunity matrix by building communities and cultivating talent...”

-Nancy Cantor, Chancellor, Rutgers-Newark

http://www.huffingtonpost.com/nancy-cantor/diversity-higher-education_b_3695503.html
The Pipeline Isn’t Just Leaky—It’s Broken

For every 100 Ninth Graders
- 74 Graduate from High School
- 46 Enter College
- 31 Are Still Enrolled Sophomore Year
- 21 Graduate within 150% Time

36M adults with some college and no degree

Higheredinfo.org, 2010
Educational Attainment
For the US 2014  Age 25-64

- Graduate or Professional Degree, 11.5%
- Bachelor's Degree, 20.0%
- Associate Degree, 8.9%
- Certificate, 4.9%
- Some College, No Degree, 16.6%
- 9th-12th, no Diploma, 7.0%
- Less than 9th grade, 4.7%
- High School Graduate, 26.4%

45.3%
Current % of adults with postsecondary credentials (2014)

Source: US Census, 2014 ACS
Educational Attainment
Illinois 2014   Age 25-64

- Bachelor's Degree, 21.9%
- Associate Degree, 8.6%
- Graduate or Professional Degree, 13.1%
- Certificate (est), 6.0%
- Some College, No Degree, 16.6%
- High School Graduate, 24.6%
- 9th-12th, no Diploma, 6.0%
- Less than 9th grade, 4.3%

49.6%
Current % of adults with postsecondary credentials (2014)

Source: US Census, 2014 ACS
To Succeed, We Must Achieve Equity and Excellence

Degree Attainment Rates among Illinois Adults (25-64) by Population Group

- White: 49.0%
- Black: 29.6%
- Hispanic: 19.4%
- Asian: 72.4%
- Native American: 32.9%

**Equity:** Recognition of the need to eliminate disparities in educational outcomes for students from historically underserved and underrepresented populations

**Excellence:** Offering clear, flexible and transparent pathways to students in their pursuit of postsecondary credentials
Percentage of Adults 25-64 with Associate’s Degree or Higher

US Ranks 6th

Source: Education at a Glance 2015: OECD Indicators
## Returns highest at Tertiary Level

Table 3: Returns to schooling by educational level and region (latest available year between 2000-2011)

<table>
<thead>
<tr>
<th>Region</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
<th>GDP/pc (PPP 2005)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>10.3</td>
<td>6.9</td>
<td>16.8</td>
<td>6,719</td>
<td>74</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>9.4</td>
<td>3.5</td>
<td>8.9</td>
<td>3,645</td>
<td>7</td>
</tr>
<tr>
<td>South Asia</td>
<td>9.6</td>
<td>6.3</td>
<td>18.4</td>
<td>2,626</td>
<td>4</td>
</tr>
<tr>
<td>Eastern and Central</td>
<td>8.3</td>
<td>4.0</td>
<td>10.1</td>
<td>6,630</td>
<td>7</td>
</tr>
<tr>
<td><strong>Europe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Income Economies</td>
<td>4.8</td>
<td>5.3</td>
<td>11.0</td>
<td>31,748</td>
<td>6</td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>11.0</td>
<td>6.3</td>
<td>15.4</td>
<td>5,980</td>
<td>6</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>9.3</td>
<td>6.6</td>
<td>17.6</td>
<td>7,269</td>
<td>20</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>13.4</td>
<td>10.8</td>
<td>21.9</td>
<td>2,531</td>
<td>24</td>
</tr>
</tbody>
</table>

Equity Indicator 5a: Bachelor's degree attainment by age 24 for dependent family members by family income quartile: 1970-2013

Source: Postsecondary Education Opportunity, “Bachelor’s Degree Attainment by Age 24 by Family Income Quartiles”
Figure 2: College graduation rates by family income and test scores

<table>
<thead>
<tr>
<th></th>
<th>Below-average test scores</th>
<th>Above-average test scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richest</td>
<td>30% Complete college</td>
<td>70%</td>
</tr>
<tr>
<td>Upper middle</td>
<td>19%</td>
<td>50%</td>
</tr>
<tr>
<td>Bottom middle</td>
<td>9%</td>
<td>39%</td>
</tr>
<tr>
<td>Poorest</td>
<td>6%</td>
<td>26%</td>
</tr>
</tbody>
</table>

99% of the 11.6M jobs created between Jan 2010 and Jan 2016 went to workers with at least some postsecondary education.

Note: Employment includes all workers age 18 and older. The monthly employment numbers are seasonally adjusted using the U.S. Census Bureau X-12 procedure and smoothed using a four-month moving average.
Roadmap for Reaching Goal 2025

24.2 Million new credentials at current rates of production

6.1M new credentials for returning adults

5.5M new credentials for adults with no PSE

4.8 new credentials for 18-24

16.4M new credentials needed by 2025 to reach 60%

Significant reduction, moving toward elimination, of attainment gaps for American Indians, African Americans and Hispanic Americans.
Today’s Student... Juggles Multiple Responsibilities

- **75%** of college students commute to class while juggling parenting, working, and both.
- **40%** attend school only part-time.
- Students work on average **19 hours per week**.
- About **40%** of community-college students work 20 or more hours per week.
Today’s Student...

Is Older and More Diverse Than Ever

Enrollment among Hispanic students tripled since the mid-1990’s,

And Black student enrollment grew by 72 percent.

38 percent of all today’s undergraduates are older than 25.
Today’s Students... Supports Themselves, and Struggle

Almost half of today’s students are on their own financially. Half of those students (25%) have financial dependents of their own.

4.8 million postsecondary students are parents, and of those, 61 percent have no money to contribute to the cost of college.

88 percent of single student-parents have incomes below 200 percent of the poverty line.
Today’s Students... Are Less Likely to Graduate

Students with additional financial, work and family obligations are twice as likely to drop out of school in their first year as students fresh out of high school – 38 percent compared to 16 percent.

No more than a quarter of part-time students make it to graduation, even when given twice as long to complete.
Employer Investment in Talent

**Employer Based Training is 63% of Postsecondary Spending**

- 35% Traditional Colleges and Universities Title IV, 271B
- 22% Employer Provided Informal Training, 312.3B
- 41% Employer Provided Formal Training, 171.8B
- 2% Government, 17B

- 59% of employers offer a formal tuition assistance program
- $4,308 expenditure per employee, on average

**BUT**

- Only 8% of employers measure their return
- 43% of working adults do not know if their employer offers a credential program
- Tuition assistance programs utilized, on average, by 5.2% of eligible staff
ROI Framework

Level 1
ROI for Program

Level 2
Revenue
Costs

Level 3
Productivity
Indirect Benefits
Operational Costs
Talent Management Costs
Training Costs
Opportunity Costs

Level 4
Productivity Output
Product / Service Innovation
New Skills
Employee Engagement
Customer Satisfaction
Brand Recognition
Loyalty
Time Savings & Efficiency
Risk Avoidance
Promotions
Internal Transfers
Turnover
Absenteeism
Training / Tuition Fees
Administration & Evaluation
Other Costs & Expenses
Productivity Loss
Replacement Cost
Employee Salary & Benefits

Key
Factors Explored in Cigna Study

Hypothesis: Positive ROI on Employee Credentialing Programs leads to more effective spend and translates to shareholder value
Cigna’s ROI

Investment

For every dollar Cigna invested in tuition assistance from 2012 to 2014...

Education Reimbursement Program (ERP)

Value Created

...Cigna got its dollar back and saved another $1.29 in talent management costs.

...frontline* employees using ERP achieved 43% incremental wage gains and had more career opportunities than non-participants.

Based On

The value created is based on increased rates of promotions, transfers, and retention for employees participating in ERP versus non-participants.

+10% promotions  +7.5% lateral transfers  +8% retention

*Note: Frontline participant refers to Cigna employees in the entry-level to mid-management bands.
Pathways
Approaches, Exemplars, and Things to Keep in Mind

“Highly-structured, educationally coherent program maps that align with students’ goals for careers and further education.”

“Simplifi[ed] student decision-making, [allowing] colleges to provide predictable schedules and frequent feedback so students can complete programs more efficiently.”

~Community College Research Center

- **Academic Planning**: Comprehensive snapshot of degree requirements, prerequisites, common stumbling blocks, enabling improved student planning
- **Block/Structured Scheduling**: Building student schedules for predictability and “other responsibilities”
- **Meta-Majors**: Broad academic majors that include related courses, clustered by career areas. Students select a Meta Major instead of a specific major early in their college career, decreasing the risk of getting off track.
- **Co-requisite Remediation**: Specific pathway development for students in remedial coursework, includes coupling placement in credit-bearing courses with supplemental support
- **Proactive/Intrusive Advising**: Targeted, in-time support and advising to students to maximize impact of pathway work
- **Comprehensive Student Information Systems**: Complementary systems that show real-time impact on student behavior
<table>
<thead>
<tr>
<th>Traditional Approach</th>
<th>Guided Pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little college and career planning</td>
<td>Default program maps</td>
</tr>
<tr>
<td>Lots of choices</td>
<td>Guided choices; lots of defaults</td>
</tr>
<tr>
<td>Paths are unclear, up to the student to navigate</td>
<td>Paths are required, tied to predictable schedules, and clearly articulated for students</td>
</tr>
<tr>
<td>Developmental education barriers</td>
<td>Dev ed is supplemented with integrated academic supports for gatekeeper courses</td>
</tr>
<tr>
<td>Student progress is episodic, with little ongoing feedback or intervention</td>
<td>Real-time progress tracking, feedback and support</td>
</tr>
</tbody>
</table>
Reminder:
It’s about LEARNING
MATH 20 – Arithmetic (5 units)  
(non-degree applicable; non-transferable)

MATH 30 – Pre-Algebra (5 units)  
(non-degree applicable; non-transferable)

**MATH 100 – Elementary Algebra (5 units)  
degree-applicable as an elective; only non-transferable)  
Math 100 = Math 101 + Math 102

**MATH 101 – Elementary Algebra – Part I (2 units)  
degree-applicable as elective units if  
MATH 102 is completed; non-transferable)

**MATH 102 – Elementary Algebra – Part II (3 units)  
degree-applicable as an elective; only non-transferable)

All of these courses meet AA / AS Graduation Competency

Correct math sequence depends on major. See a counselor *

MATH 144 (3 units)  
Math for Contemporary Careers

MATH 125 (4 units) or MATH 120 (5 units)  
Intermediate Algebra with Applications  
or Intermediate Algebra

MATH 110 (5 units)  
Elem. Geometry  
Unless Geometry is on HS or College transcript

and

CSU Sacramento  
Liberal Studies  
(Teaching Credential)

Transferable math courses for  
other majors **

MATH 300 (3 units)  
Math Ideas (CSU / UC)

or

STAT 300 (4 units)  
Intro to Probability & Statistics (CSU / UC)

or

MATH 315 (3 units)  
Exploratory Field Experience (CSU / UC)  
SUNSPRING ONLY

MATH 310 (3 units)  
Math Discovery (CSU)

MATH 335 (5 units)  
Trigonometry with College Algebra (CSU)

MATH 340 (5 units)  
Pre-Calculus Math (CSU / UC)

MATH 370 (5 units)  
Calculus I (Engineering Calc.) (CSU / UC)

MATH 350 (3 units)  
Calculus for the Life & Social Sciences I (CSU / UC)

MATH 351 (3 units)  
Calculus for the Life & Social Sciences II (CSU / UC)

MATH 344 (3 units)  
Finite Mathematics (CSU / UC)

MATH 400 (5 units)  
Engineering Calc.) (CSU / UC)

MATH 401 (5 units)  
Calculus II (Engineering Calc.) (CSU / UC)  
SUNSPRING ONLY

MATH 420 (4 units)  
Differential Equations  
(CSU / UC)

MATH 402 (5 units)  
Calculus III (Engineering Calc.)  
(CSU / UC)

MATH 410 (3 units)  
Intro to Linear Algebra  
(CSU / UC)
Exemplars – Degree Maps

• Highly structured, default course pathways
• Optimizes schedule design for success, minimizes mistakes
• Students default-into the right courses for their major. They must receive permission to diverge from this schedule.

• Florida State University: since starting degree maps, FSU has cut the number of students graduating with excess credits in half, while increasing grad rate (for all students) to 74%
• Georgia State University: since starting intrusive advising and degree maps, grad rates are up 20%, with more bachelor’s degrees to African Americans than any other US university
Exemplars – Meta Majors

• Students are channeled early in their college careers into large programs of study, like Arts/Humanities; Business; Education; Health Sciences; Industry/Manufacturing; Public Safety; STEM; Social and Behavioral Sciences (Florida’s approach)

• Students complete core pre-requisites and see the full array of related majors BEFORE they fully commit to a program of study

• No student is “unclassified”

• Georgia State University experienced a 30% decrease in students changing majors after implementing meta-majors

• Schools to watch: Miami-Dade College; Lorain County Community College
Life is a balancing act… What else can fit here?
Exemplars – Structured Schedules

• Predictable, sensible block scheduling so students don’t have to decide between school, work and other responsibilities
• Maximizes opportunity for full-time enrollment

• **CUNY ASAP** model uses block scheduling (8 am - Noon, M-F), along with cohorts and small financial incentives (subway passes and books) – completion rates almost doubled for ASAP students (40% completion in 3 years, compared to 22% for control group), with higher rates of transfer (25% compared to 17%)
  – Full-time enrollment increased for ASAP students, by 11 and 20 percentage points in the first two semesters of the evaluation, compared to the control group
  – Despite the investment required to operate the program, the cost per degree for ASAP students was lower than for the control group

• **Ivy Tech ASAP** uses significantly accelerated programming, offering associate degrees in 11 months, using cohorts, structured schedules (8:00 – 3:00, M-F), and early recruiting.
  – 61% of ASAP students earn an associate degree in one year
  – 98% of students persist after the first year to either a bachelor’s degree or a second associate
  – 100% of ASAP graduates are accepted into one or more 4-year colleges
  – Significantly lower cost per degree compared to average ITCC
The System Does Not Work, Particularly for African Americans

Gateway Course Completion in 2 years
2-year college remedial students

- White, non-Hispanic: 23%
- Hispanic: 20%
- Black, non-Hispanic: 11%
- Received Pell Grant: 19%
One Semester Gateway Completion Corequisite Support At Scale

<table>
<thead>
<tr>
<th>Location</th>
<th>English</th>
<th>Math</th>
<th>Traditional Remediation</th>
<th>National Avg for Gateway Course Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>64%</td>
<td>64%</td>
<td>22%</td>
<td>62%</td>
</tr>
<tr>
<td>Georgia</td>
<td>71%</td>
<td>63%</td>
<td>22%</td>
<td>64%</td>
</tr>
<tr>
<td>Indiana</td>
<td>64%</td>
<td>64%</td>
<td>55%</td>
<td>63%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>64%</td>
<td>61%</td>
<td>22%</td>
<td>64%</td>
</tr>
<tr>
<td>West Virginia</td>
<td>68%</td>
<td>62%</td>
<td>22%</td>
<td>64%</td>
</tr>
</tbody>
</table>
Exemplars – Co-Requisite Remediation

- More than half of students entering a 2-year college enroll in remediation
- 22.3% of those students complete remediation and associated college-level courses in two years
- 9.5% of those students graduate within 3 years

<table>
<thead>
<tr>
<th>Institution</th>
<th>Subject</th>
<th>Traditional Model</th>
<th>Co-Req Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC of Baltimore County ALP</td>
<td>English</td>
<td>33%</td>
<td>74%</td>
</tr>
<tr>
<td>Austin Peay State University</td>
<td>English</td>
<td>49%</td>
<td>70%</td>
</tr>
<tr>
<td>Structured Assistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning</td>
<td>11%</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td>8%</td>
<td>65%</td>
</tr>
</tbody>
</table>

- The **Texas State University – San Marcos FOCUS** program moved 500 remedial CC students through a pilot that aligned remediation with college-level algebra or statistics. 61% of these students completed algebra with a C or better, compared to 52% of students who were judged ready for college algebra in the first place.
We need better-educated workers!

We need better-educated high-school grads!

We need better-prepared mid-schoolers!

We need better jobs!

We need full-day kindergarten!

We need more pre-K programs!

We need pre-natal care!

We need elementary kids that can read and do math!
Thank you!

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