



Dual Credit in Illinois: Research and an Innovative Application

Wendy Howerter, LLCC
Eric Lichtenberger, IERC
Jason Taylor, OCCRL

Scaling up: Effective Practices in Higher
Education Conference in Normal, Illinois

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Agenda

- Background on Dual Credit
- Access to Dual Credit based on High School Characteristics
- Impact of Dual Credit on Enrollment and Degree Completion
 - Without controlling for selection bias
 - Controlling for selection bias
- Application-An early start to college at LLCC

Dual Credit vs. Dual Enrollment

	DUAL CREDIT	DUAL ENROLLMENT
What credit is earned?	Earns college AND high school credit	Earns college credit; may earn high school credit
Articulation agreement required?	Yes. Reflect well established secondary –postsecondary articulation and alignment	Not required
Who initiates?	Students do not need to initiate contact or petition the high school to accept the credit	Often student initiated, not administratively facilitated
Where are courses offered?	At the college, high school, area career center, online or via distance learning	At the college

Source: Illinois Community College Board

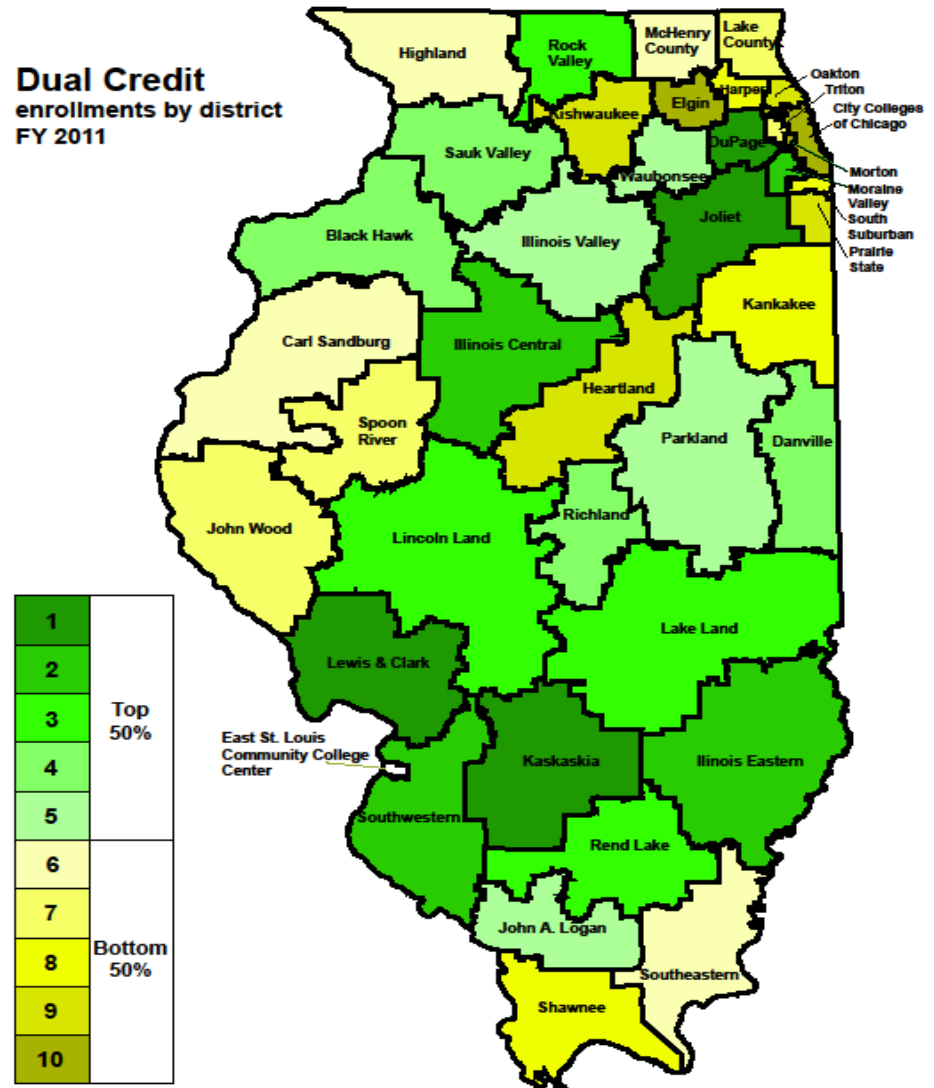
Dual Credit Policy Development in Illinois

Year	Policy Development
Pre-1990	ICCB's Administrative Rules
1996	ICCB changed administrative rules to allow student to be counted for ADA & FTE
2001	ICCB initiates ACE grants (\$55/credit hour to colleges)
2003	ACE grants expanded & renamed "P-16 Grants"
2008	P-16 Grant eliminated
2008	Dual Credit Task Force Report Recommendations: 1) Ensure quality; 2) improve access, equity, and attainment; 3) increase accountability
2009	Dual Credit Quality Act Sections: 1) Student access, attainment, and eligibility; 2) standards; 3) oversight, review, and reporting; 4) accountability
2013	ICCB's Dual Credit Enhancement Grants

Source: Taylor (2013)

DATA AND STATEWIDE TRENDS

Dual Credit
enrollments by district
FY 2011



Source: Illinois Community College Board

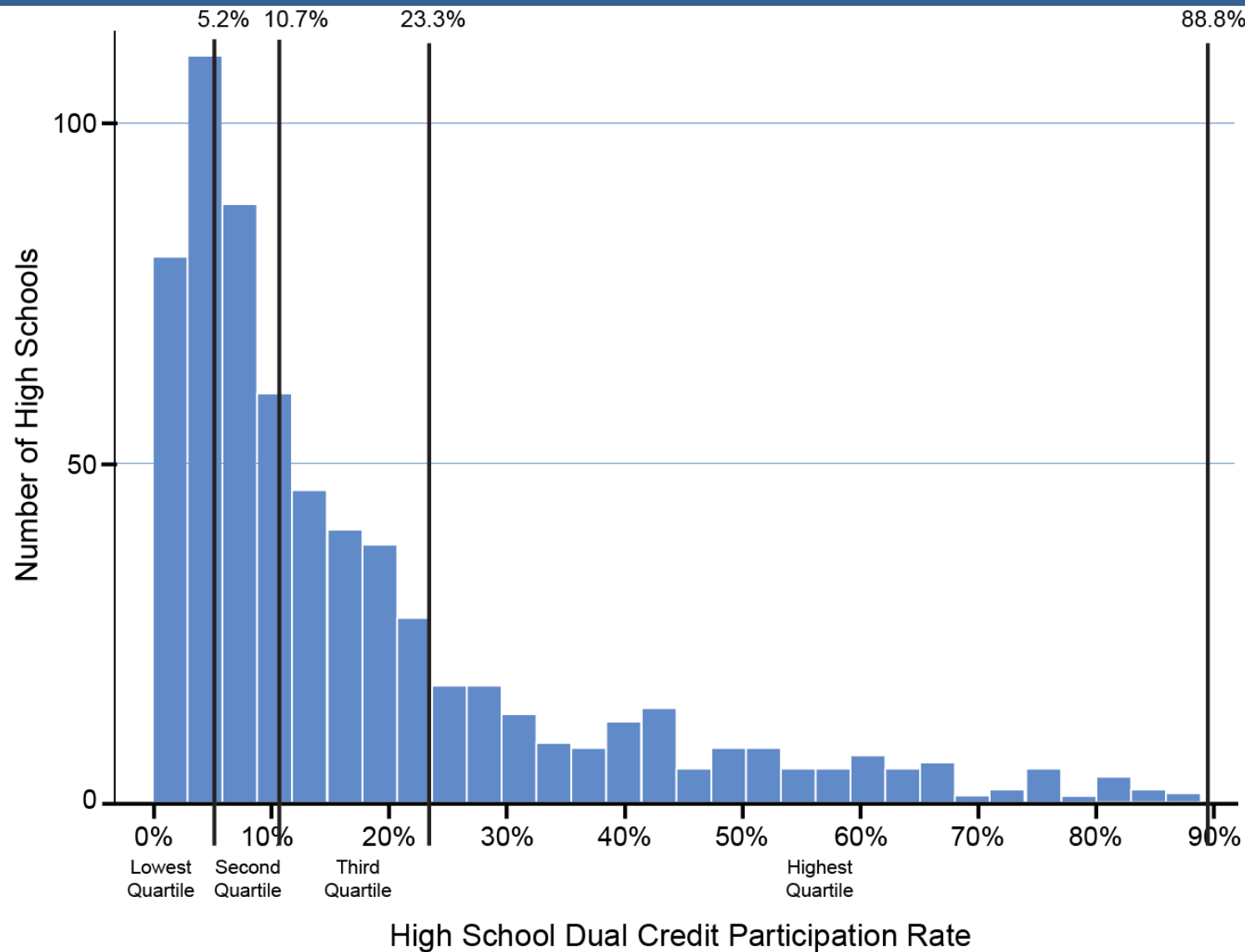
Access based on High School Characteristics

- Source: Taylor and Lichtenberger (2013)
- Joint IERC/ OCCRL Research Brief

Research Question-

What is the relationship between high school dual credit participation rates and high school characteristics?

High School Dual Credit Participation Rates

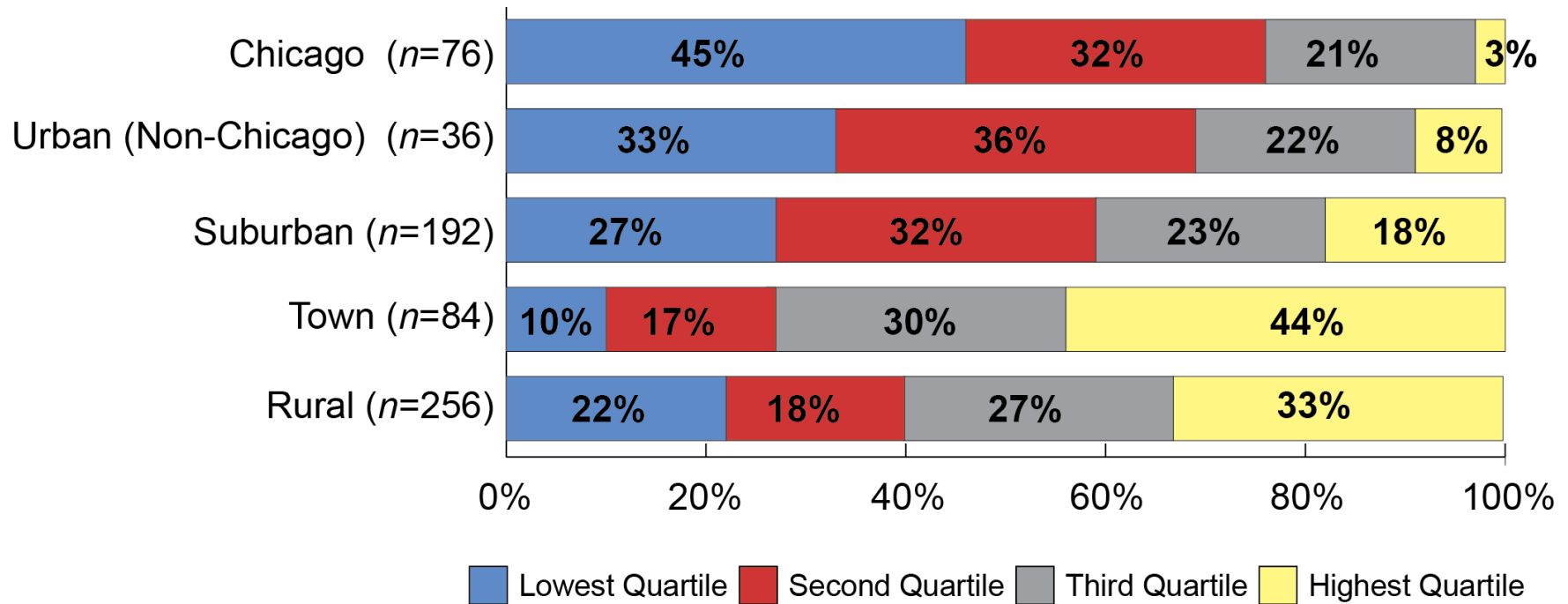


Taylor & Lichtenberger (2013)

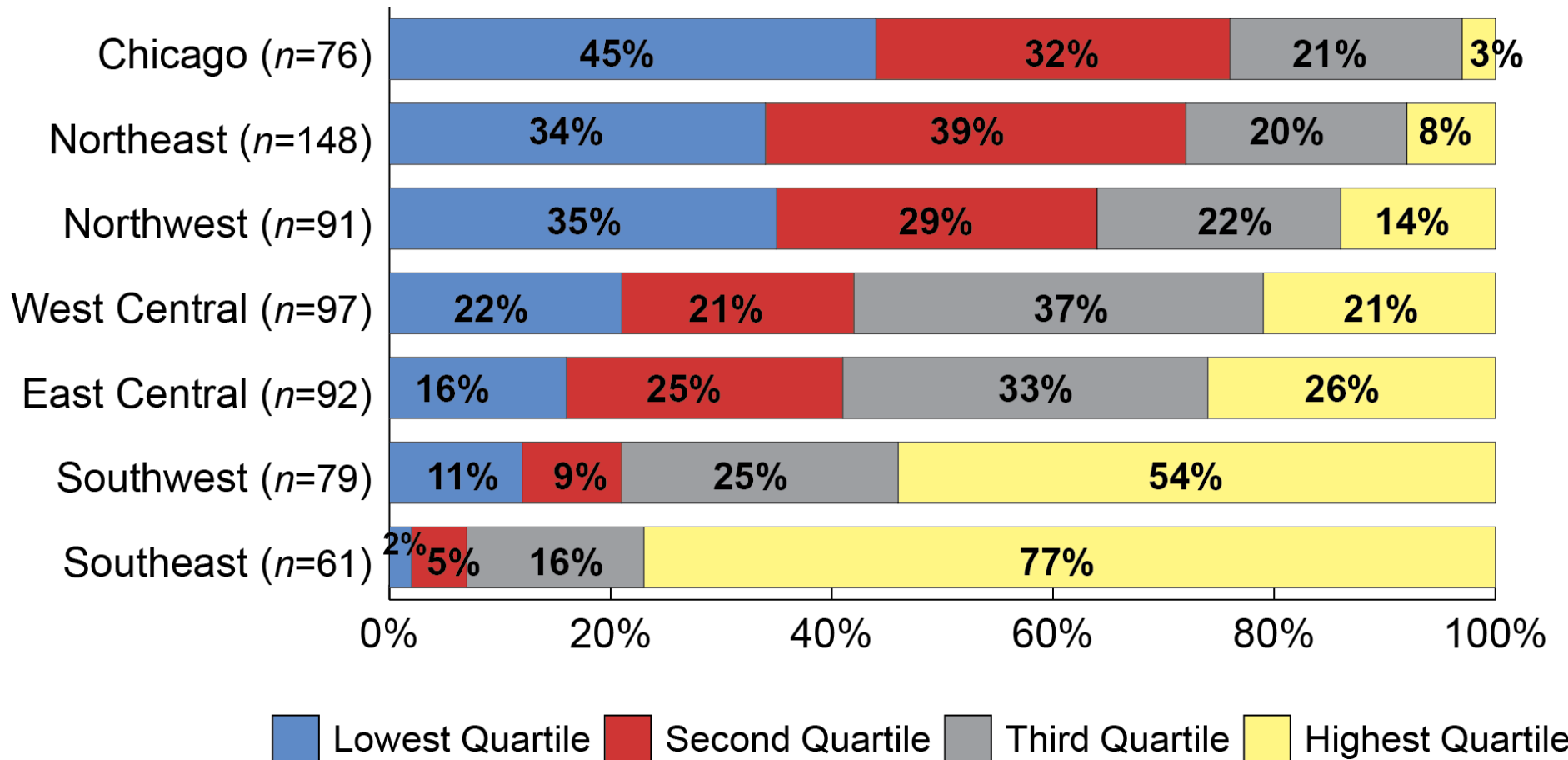
High School Dual Credit Quartiles

Dual Credit Quartile	Proportion Range	Number of Schools	Percent
Lowest Quartile	0% to 5.2%	162	25%
Second Quartile	5.3% to 10.7%	160	25%
Third Quartile	10.8% to 23.3%	161	25%
Highest Quartile	23.4% to 88.8%	161	25%

High School Dual Credit Quartiles by Locale

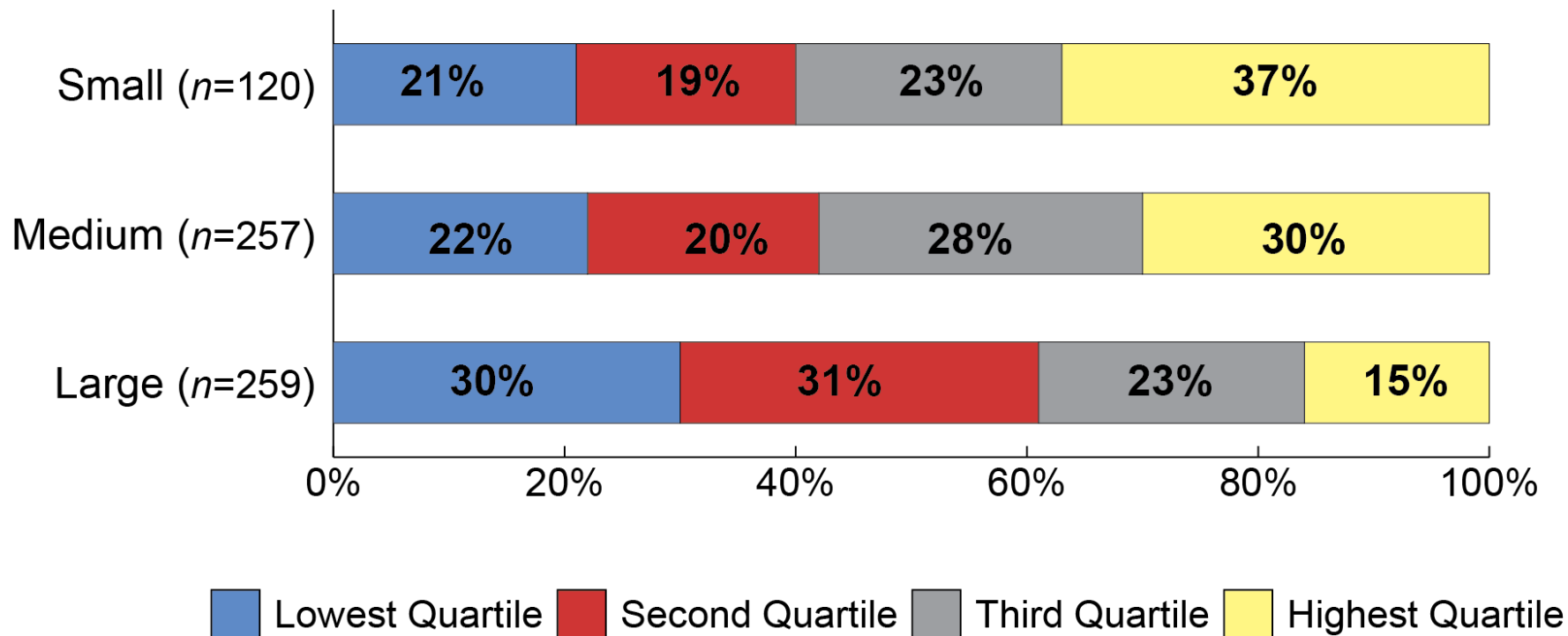


High School Dual Credit Quartiles by Region



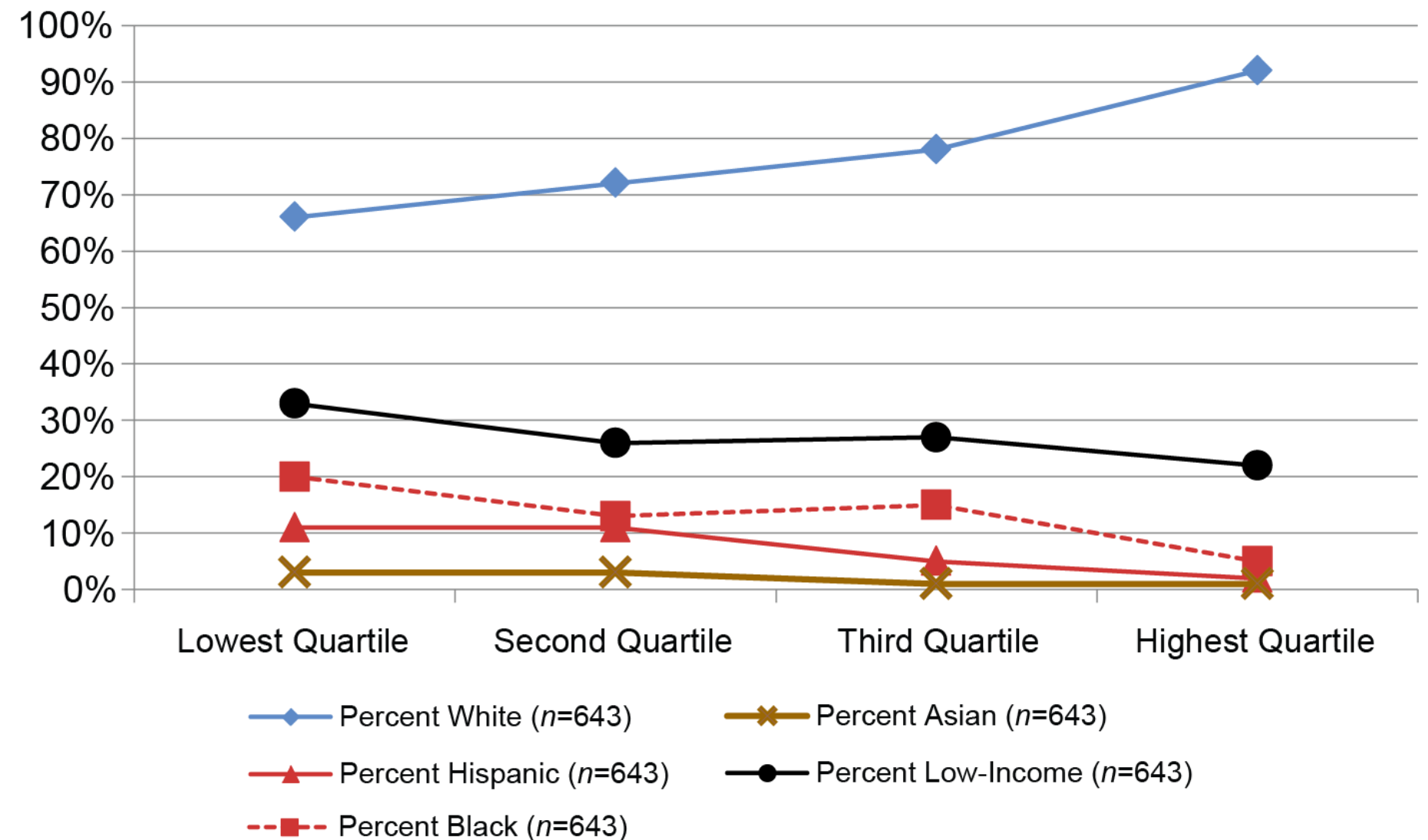
Source: Taylor & Lichtenberger (2013)

High School Dual Credit Quartiles by District Size



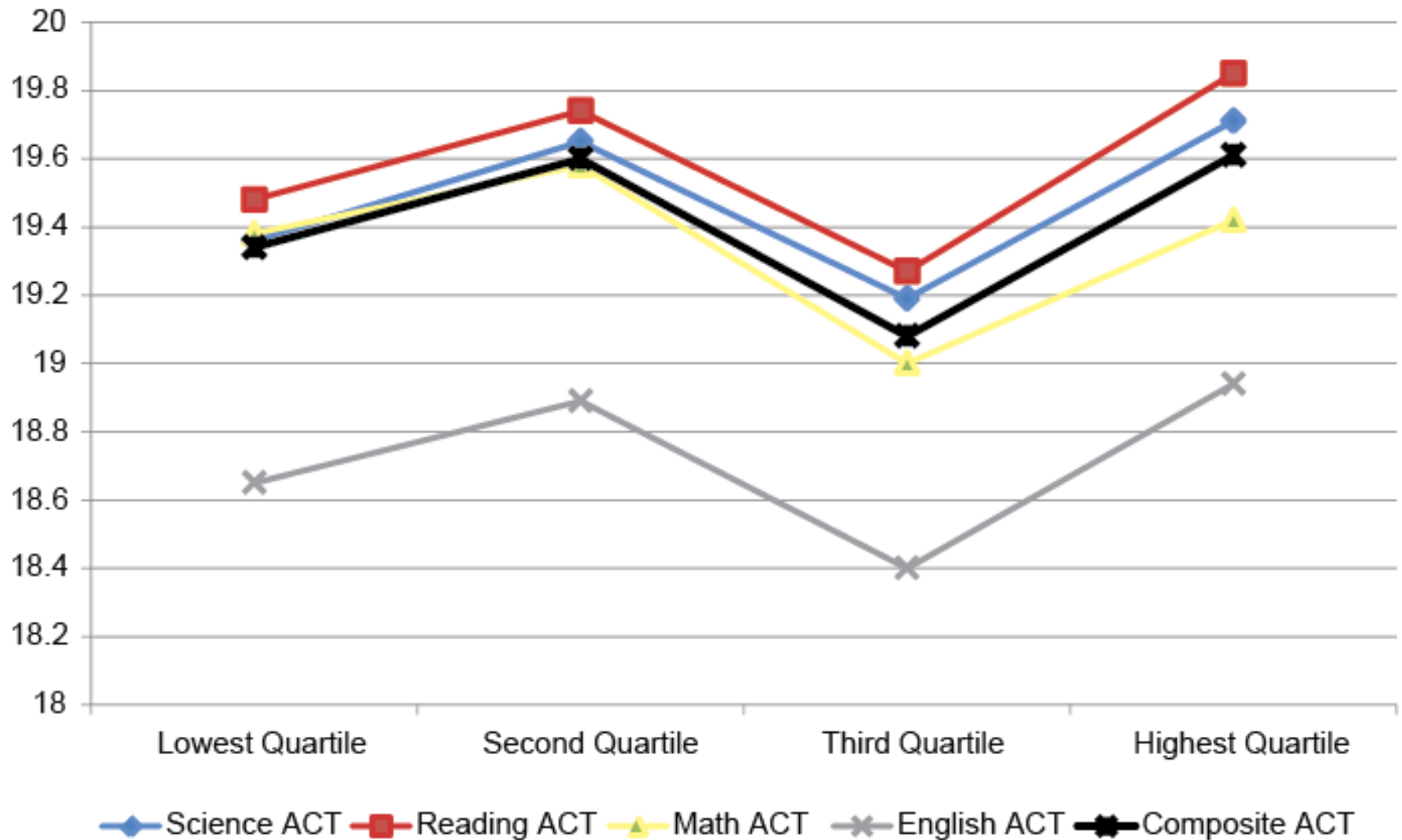
Source: Taylor & Lichtenberger (2013)

High School Dual Credit Quartiles by Race/Ethnicity and Low-Income

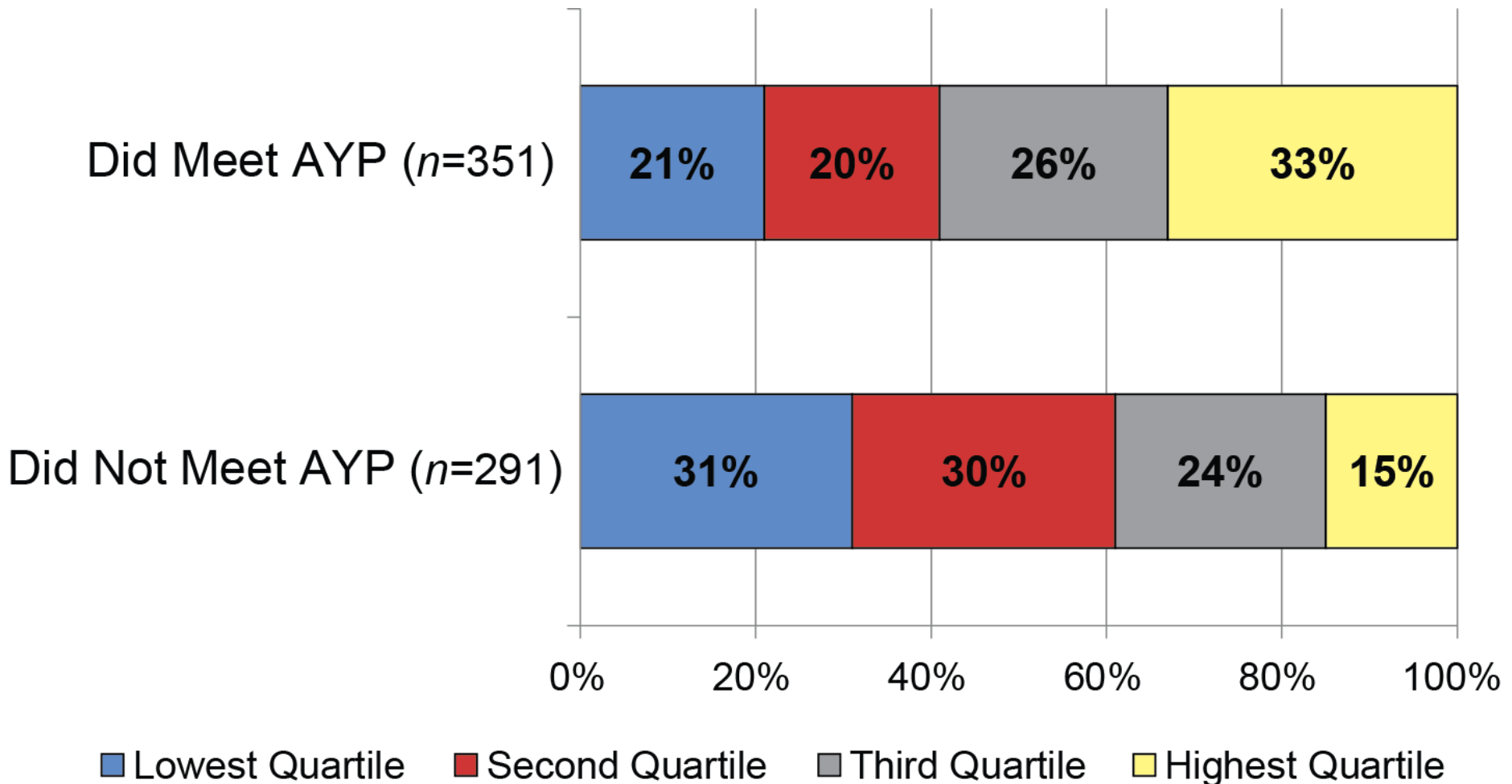


Source: Taylor & Lichtenberger (2013)

High School Dual Credit Quartiles by ACT



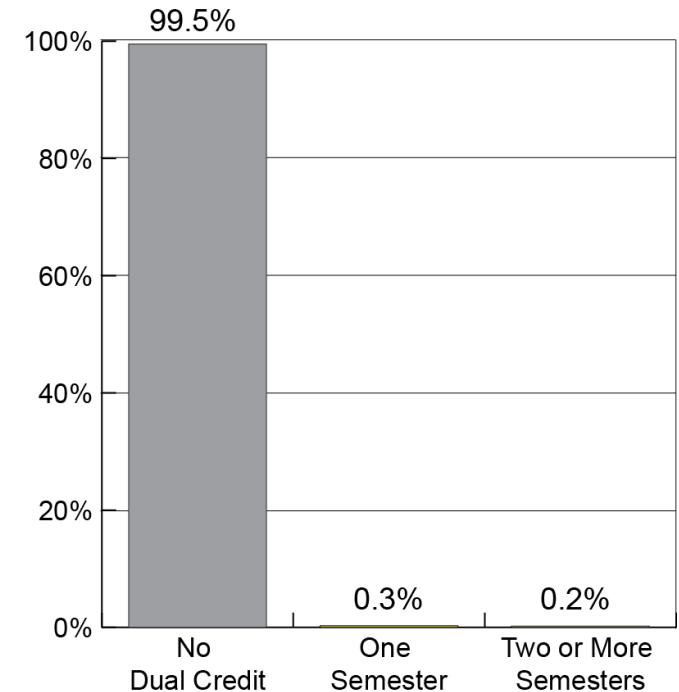
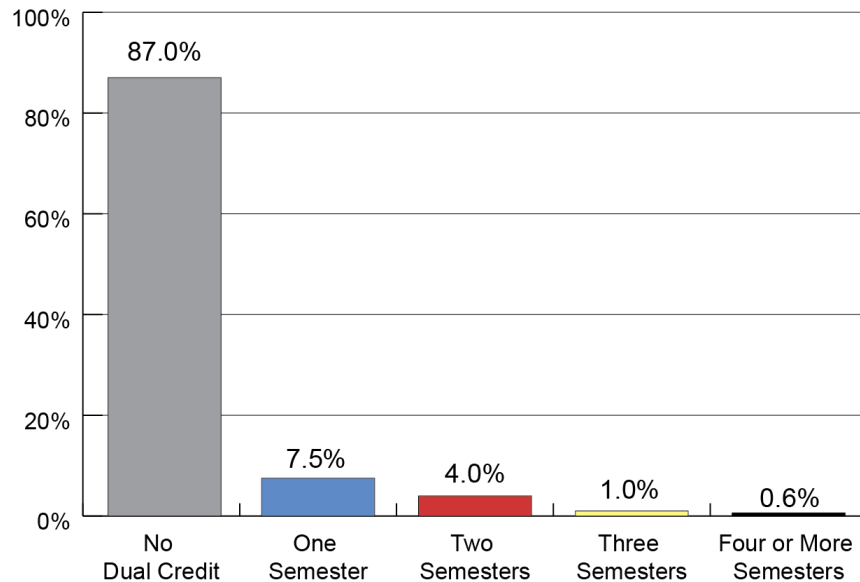
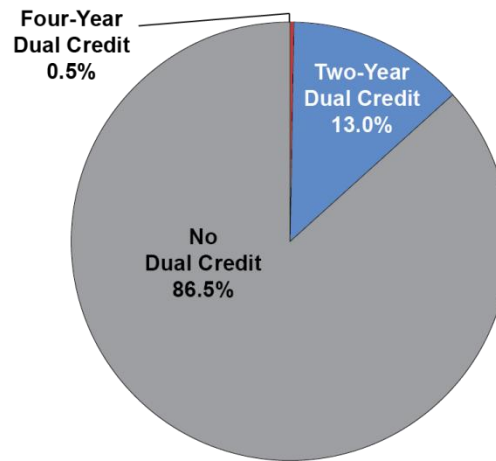
High School Dual Credit Quartiles by AYP



High School Dual Credit Quartiles by Attendance, Graduation, Truant, and Dropout Rates

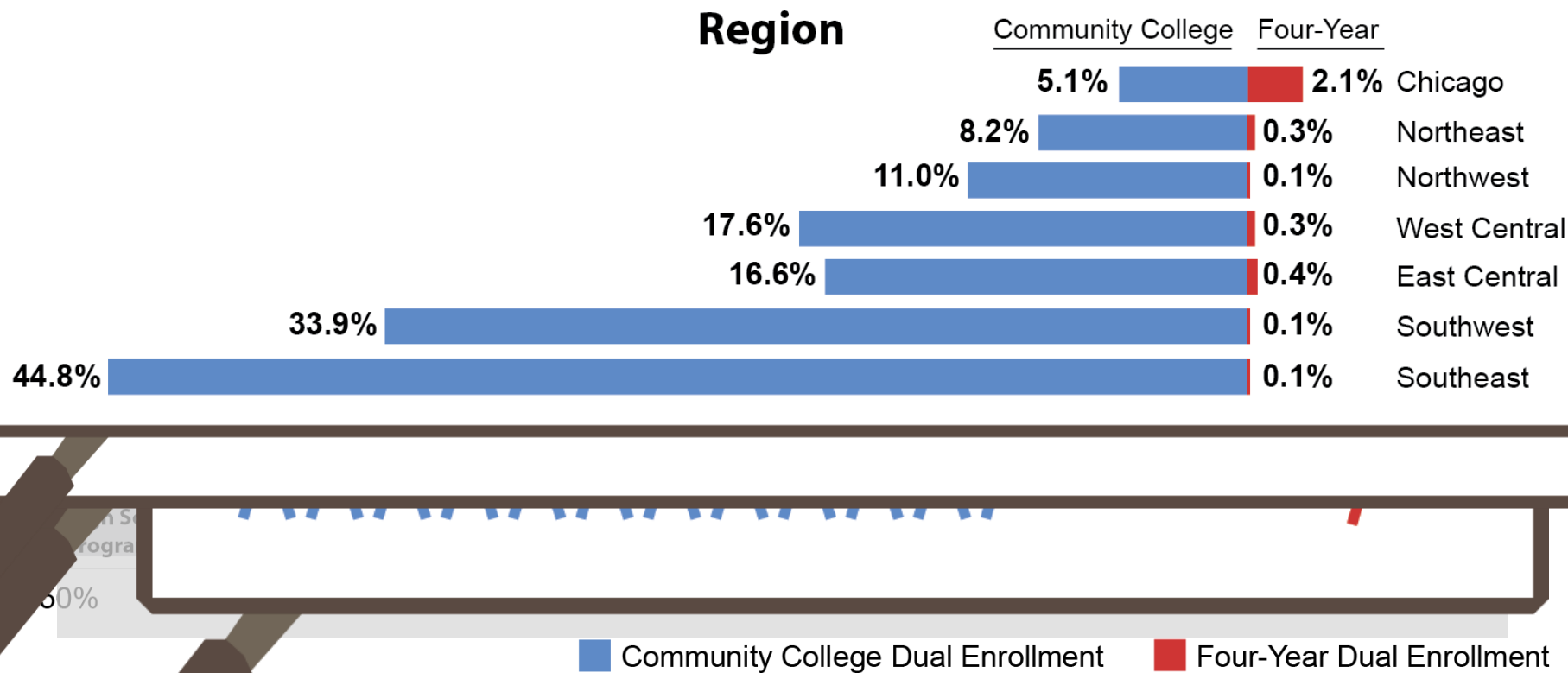
Characteristic	Lowest Quartile (Mean)	Second Quartile (Mean)	Third Quartile (Mean)	Highest Quartile (Mean)
Attendance Rate ($n=643$)	92%	93%	92%	94%
Graduation Rate ($n=640$)	87%	87%	88%	91%
Chronic Truant Rate ($n=643$)	4.3%	3.2%	3.9%	2.8%
Drop Out Rate ($n=643$)	5.7%	4.3%	4.3%	3.4%

Dual Credit by Sector



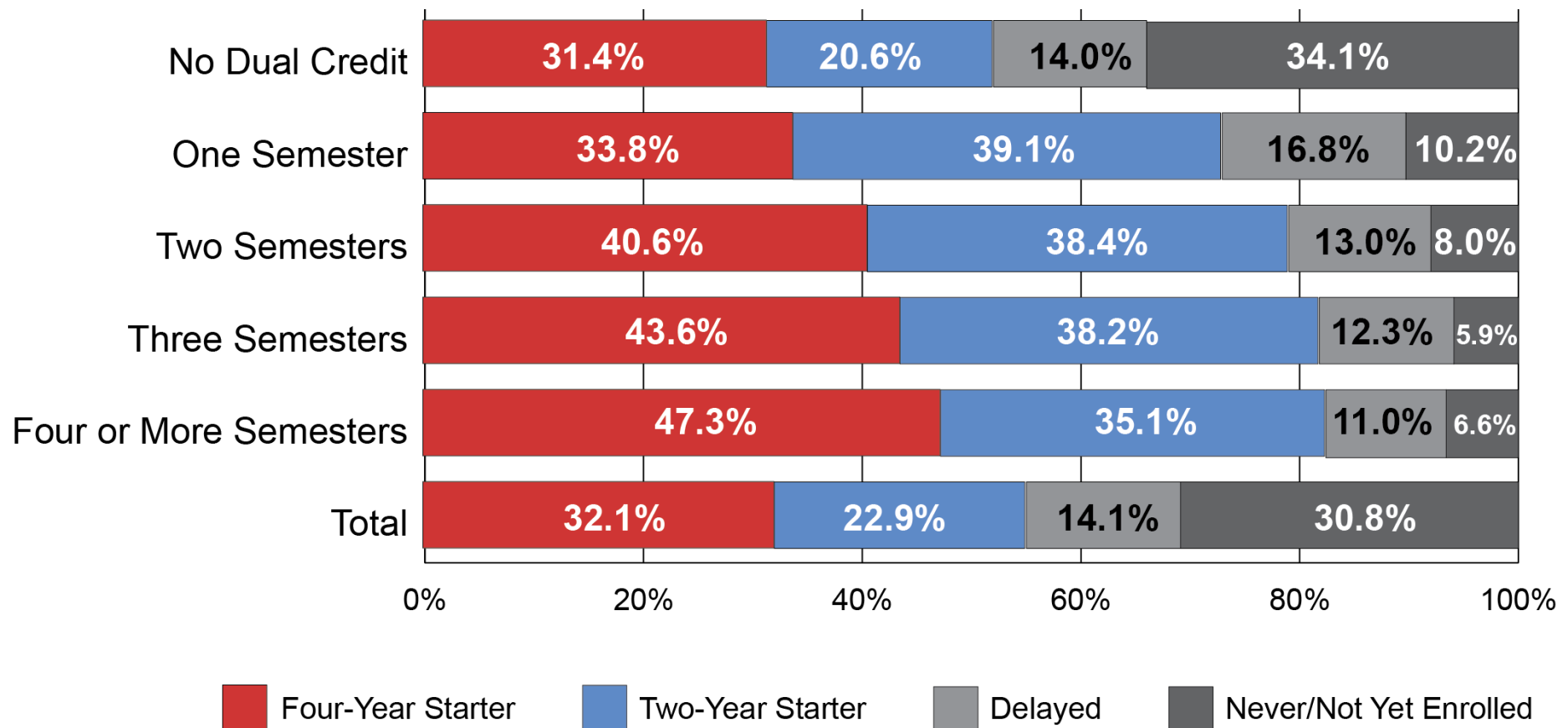
Source: Witt, Lichtenberger, Blankenberger, & Franklin, (2013)

Dual Credit and Select Demographics

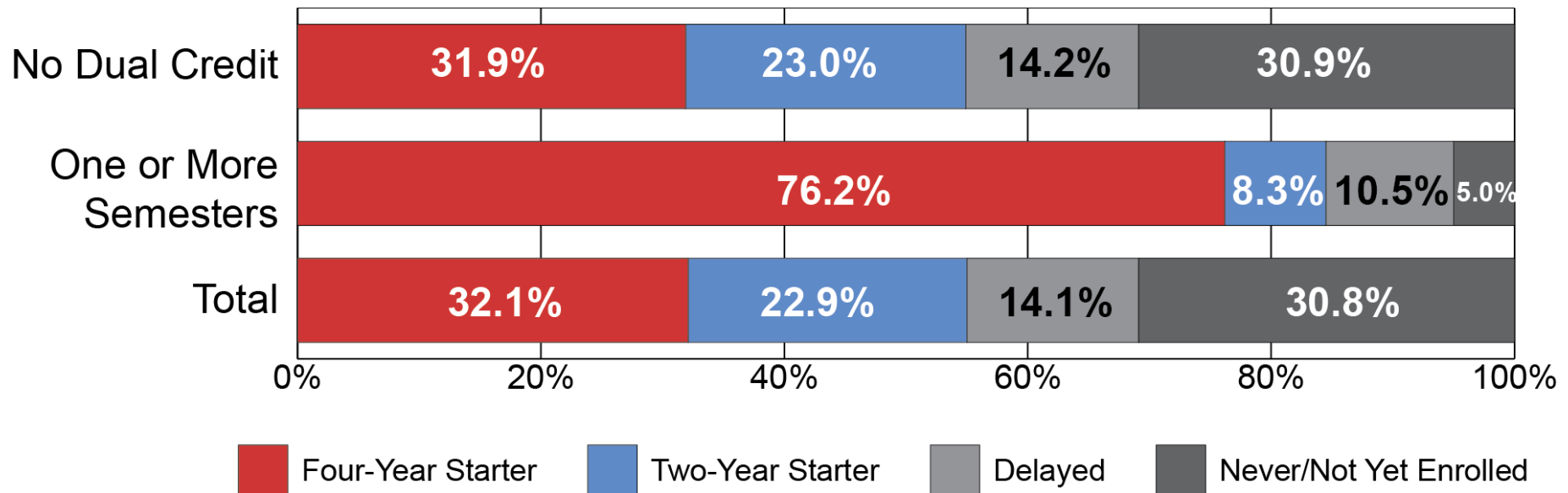


Source: Witt, Lichtenberger, Blankenberger, & Franklin, (2013)

Enrollment by Community College Dual Credit



Enrollment by Four-Year College Dual Credit



Dual Credit and Enrollment Patterns

	High Income Model		Mid-High Income Model		Mid-Low Income Model		Low Income Model	
	Four-Year	Two-Year	Four-Year	Two-Year	Four-Year	Two-Year	Four-Year	Two-Year
	Odds	Odds	Odds	Odds	Odds	Odds	Odds	Odds

	High Income Model		Mid-High Income Model		Mid-Low Income Model		Low Income Model	
	Four-Year	Two-Year	Four-Year	Two-Year	Four-Year	Two-Year	Four-Year	Two-Year
	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio
Semesters Dually Enrolled ICCB	4.124	5.305	3.349	4.026	2.966	3.631	2.500	2.953
Semesters Dually Enrolled 4-yr	9.121	4.187			10.909	2.422	13.844	5.754

*shaded cells indicate statistical significance at the $p \leq .001$ level.

ACT English	1.034	.986	1.037	.994	1.039	1.008	1.078	1.014
ACT Math	1.031	.958	1.028	.978	1.021	.978	1.044	.985
ACT Reading	1.011	.996	1.018	.996	1.017	.997	.998	.987
ACT Science	1.009	1.011	1.019	1.007	1.047	1.017	1.073	1.026
Completed ACT Core	1.391	1.118	1.475	1.172	1.339	1.194	1.491	1.132
HS Program (CTE to College Prep)	.540	1.074	.429	.703	.546	.830	.722	.837
(General to College Prep)	.739	1.133	.614	.935	.647	.879	.644	.782
Expecting to Work While Enrolled	.900	1.265	.928	1.012	.837	.829	.804	.869
Expecting to Receive Financial Aid	1.161	1.172	1.272	1.010	1.465	1.123	1.659	1.273
Number of Siblings	.921	.972	.938	.962	.923	.950	.928	.930
Region (Northeast to Chicago)	.905	1.929	.944	1.376	.848	1.950	.682	1.473
(Northwest to Chicago)	.538	2.179	.567	1.490	.514	2.197	.374	1.362
(East Central to Chicago)	.618	2.078	.546	1.232	.454	1.427	.445	1.074
(West Central to Chicago)	.622	1.994	.688	1.594	.482	2.050	.337	1.449
(Southwest to Chicago)	.662	1.500	.625	.965	.460	1.506	.444	1.012
(Southeast to Chicago)	.366	2.008	.343	1.173	.256	1.748	.243	1.193
High School Mean Composite ACT	1.075	.935	1.111	1.005	1.101	1.018	1.066	1.043

Dual Credit and Bachelor's Degree Completion

	High Income	Mid-High Income	Mid-Low Income	Low Income
	High Income	Mid-High Income	Mid-Low Income	Low Income
	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio
Semesters Dually Enrolled ICCB	1.034	1.014	1.046	1.098
Semesters Dually Enrolled 4-yr	1.027		1.123	1.173

*shaded cells indicate statistical significance at the $p \leq .001$ level.

ACT Reading	1.004	.999	.998	1.013
ACT Science	.994	.991	.996	.995
Completed ACT Core	1.030	1.052	1.102	1.148
High School Program (CTE to College Prep)	1.015	.900	.897	.966
(General to College Prep)	.970	.892	.985	.950
Expecting to Work While Enrolled	.968	.962	.895	.955
Expecting to Receive Financial Aid	.988	.929	.994	.776
Number of Siblings	.969	.973	.975	.910
Region (Northwest to Chicago)	1.051	.971	.846	1.007
(Northwest to Chicago)	.995	1.035	.910	.884
(East Central to Chicago)	1.028	.972	.977	.984
(West Central to Chicago)	.973	.891	.844	.837
(Southwest to Chicago)	.968	.848	.979	.910
(Southeast to Chicago)	.739	.941	.814	1.050
High School Mean Composite ACT	1.042	1.049	1.046	1.050
Distance between HS and College (>30-74 to <30)	1.047	1.059	1.142	1.222
(75-174 to <30)	1.101	1.175	1.166	1.385
(175+ to <30)	1.113	1.074	1.106	1.296
Sector (Public)	1.040	.980	1.014	.964
Selectivity (Highly Selective)	1.068	1.134	1.122	1.161
Selectivity/ College Readiness Alignment (Undermatched to Aligned)	.920	.984	.868	.850
Overmatched to Aligned	1.130	1.161	1.139	1.322

Differential Participation and Differential Impacts on College Access and Success

- Research Questions:
 1. What is the impact of community college dual credit on college enrollment and completion?
 2. What is the differential impact of community college dual credit on college enrollment and completion for low-income students and students of color?

- Method: Descriptive and quasi-experimental
- Dataset: IERC dataset – ACT Student Information Survey & ACT records, National Student Clearinghouse (2003-2010)
- Sample:
 - 12 Dual Credit Community College Districts
 - CCC, DACC, KCC, LCCC, LLCC, PC, PSC, RLC, SEIC, SWIC, TC, JWC
 - 41, 737 students in 2002-03 HS senior class
 - 5,315 DC students and 36,422 non-DC students
- Examined sub-samples of low-income students and students of color

Descriptive Results: College Enrollment and Completion

Dependent Variable	Total (Percent)	Dual Credit (Percent)	Non-Dual Credit (Percent)
Full Sample			
College Enrollment	0.66	0.91	0.63
College Completion	0.31	0.52	0.29
Students of Color			
College Enrollment	0.64	0.91	0.62
College Completion	0.24	0.43	0.23
Low-Income Students			
College Enrollment	0.60	0.85	0.58
College Completion	0.20	0.34	0.18

Source: Taylor (2013)

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Source: Taylor (2013)

Bias Reduction

Variable	Before (mean or proportion)	After(mean or proportion)	Percent Bias Before & After	Percent Bias Reduction
ACT English	DC: 20.2 Non-DC: 18.2 (p=.00)	DC: 20.0 Non-DC: 19.8 (p=.22)	Before: 33.4% After: 2.7%	91.8%
Gender	(p=.00)	(p=.616)		
Female	DC: 0.56 Non-DC: 0.52	DC: 0.55 Non-DC: 0.56	Before: 8.7% After: -1.1%	86.9%
Male	DC: 0.43 Non-DC: 0.48	DC: 0.44 Non-DC: 0.43	Before: -8.2% After: 1.4%	83.3%
Missing	DC: 0.00 Non-DC: 0.01	DC: 0.00 Non-DC: 0.01	Before: -3.0% After: -1.7%	45.5%

Source: Taylor (2013)

Propensity Score Matching—Matched Sample of DC and non-DC students

- Academic preparation and achievement
- Demographic
- High school extracurricular activities
- Academic and career expectations and aspirations
- Family-related variables (parent's income, ability to pay, siblings, etc.)

Matched Samples	Dual Credit (n)	Non-Dual Credit (n)
Total Sample	4,727	17,639
Students of Color	684	4,379
Low-Income Students	668	2,159

Source: Taylor (2013)

What is the effect of community college dual credit on college enrollment?

Dependent Variable	Odds Ratios			Marginal Effects (Difference between DC and non-DC)		
	Full Sample	Students of Color	Low-Income	Full Sample	Students of Color	Low-Income
College Enrollment	7.44***	5.78***	4.77***	0.34	0.26	0.30

Source: Taylor (2013)

What is the impact of community college dual enrollment on completion?

Dependent Variable	Odds Ratios			Marginal Effects (Percent Difference between DC and non-DC)		
	Full Sample	Students of Color	Low-Income	Full Sample	Students of Color	Low-Income
College Enrollment	7.44***	5.78***	4.77***	0.34	0.26	0.30
College Completion	2.62***	1.85***	2.29***	0.22	0.14	0.16

- Dual credit has a positive effect for all students and underrepresented students but the effect is not equitable.

Source: Taylor (2013)

What Do These Data Mean?



What is next?

- In Illinois:
 - Need more recent data to account for policy changes
 - More nuanced data: effects of course location, course discipline, course intensity, student-level variables, etc.
 - Qualitative data on program and policy implementation
 - Equity and Student Eligibility
 - Tension between access and quality

Wendy Howerter, Ed.D.
Dean, District Learning Resources
Lincoln Land Community College

SCALING UP CONFERENCE
October 31, 2013

AN EARLY START TO COLLEGE: A PRACTICAL APPLICATION

DUAL CREDIT MODELS

Academic or Career and Technical Education (CTE)

- High school faculty are qualified and the college courses are taught in the high school
- High school students come to the college campus to take college courses (prior approval may be needed for high school credit)
- College faculty go to the high school and provide college courses

First Semester

Cover Page of Brochure

Lincoln Land Community College



First Semester @ New Berlin High School

A collaboration between Lincoln Land Community College and surrounding school districts.



Mission and Vision Statements

- **Mission Statement:**
“First Semester” will provide a college level experience to high school seniors allowing them to earn dual credit, and develop the necessary readiness and skills for continued postsecondary academic success.
- **Vision Statement:**
Students will leave high school prepared for continued success in postsecondary educational pursuits.

Goals and Benefits

Goals:

- To provide educational opportunities for high school students in the Lincoln Land Community College (LLCC) district;
- To enhance the current high school curriculum;
- To address students' unique interests, abilities, and attitudes; and,
- To improve the transition of students from high school to college.

Benefits:

- Credit earned is posted as college credit on an official LLCC transcript.
- Courses offered in district high schools make college more accessible to area high school students.
- Students still participate in high school activities

Student/High School Benefit

- Average Daily Attendance for high school (1/2 day)
- Students allowed to participate in high school activities, i.e., graduation, sports, band, prom, etc.
- Students follow college schedule (class time, breaks, holidays)
- Students will be exposed to the online learning environment
- Students will become more accustomed to the rigors and demands of college level work
- Students are in a comfortable environment
- Students will earn 14 credit hours of college credit

Other Important Information

- Parent/student information session held the year prior to program offering.
- Students' final high school GPA is considered complete after their December semester.
- High school transcript credit is pass/fail but college transcript is assigned a grade.

Other Important Information cont'd

- High school graduation requirements must be met prior to admission to First Semester program so that any course failure does not impact high school graduation.
- Students follow the college schedule. Arrangements are made to hold class at the college campus when the high school has a planned closure.
- There is contact with the high school counselor and FERPA waivers are signed to allow for this. (may need to verify for IHSA sports eligibility or student/LLCC faculty needs to talk to the high school counselor)

LLCC Benefit

- Collaborative efforts with the high school that provides dual credit/early start options to students who may not otherwise have opportunities (limited dual credit opportunities due to faculty teaching requirements)
- Tuition and fees are collected
- Headcount for apportionment
- LLCC faculty are more comfortable with this arrangement
- LLCC exposure/experience to parents and students

Student Guidelines

- At least ACT = 21 in English and Reading or placement exam
- High School unweighted GPA ≥ 3.0
- All high school graduation requirements must be met by December 2013
- Complete high school application and LLCC application
- Counselor recommendation

Course Schedule

Day of the Week	Couse Number/Topic	Time	Instructor
M/W	HIS 112 J77/United States History Since 1877 – 3 credit hours (IAI: S2 901)	8:00am – 9:15am	Winters
M/W	PSY 101 J77/Introduction to Psychology – 3 credit hours (IAI: S6 900)	9:30am – 10:45am	Dow
T	LIT 114 J77/Introduction to Film as Literature – 3 credit hours (IAI: HF 908)	8am – 11:50am	Myers
TH (F, if more than 24 students)	CMN 101 J77/Introduction to Public Speaking – 3 credit hours (IAI:C2 900)	8am – 10:50am	Disney
OL	CSS 100 OL77/College Success Skills – 2 credit hours	Online	Chernowsky
Tuition and fees	\$1576.00 + textbooks		
Courses do not have prerequisites but a couple have reading advisories		A balanced schedule was planned based on reading/writing requirements along with spreading gen ed courses across multiple areas; also considered what was currently provided for dual credit at the high schools	

Enrollments

- Spring 2012 - 15 students – 15 completed program
- Spring 2013 - 32 students – 31 completed program
- Spring 2014 - 15 students (still enrolling)
 - Another cohort is being developed at another location
- Enrollments vary by class year
- Schools participating vary by year

Disadvantages

- Students are not high school graduates and therefore cannot apply for financial aid
- Scenario is similar in some aspects to the college experience but not completely
- Students'/parents' understanding of a full load without the apparent clock hour requirements
- There is a lack of diversity in the classroom that proves to be advantageous to college student learning

Questions?

Contact Information

wendy.howarter@lcc.edu

elichte@siue.edu

taylor26@illinois.edu