

*Research Highlights and Conclusions*

- The degree to which TLC instructional teams foster integrative thinking and connections between courses, create a sense of community, and promote an inclusive environment positively predicts student satisfaction with their learning experiences.
- The vast majority of students (92%) reported that they completed a required integrative assignment. 86% felt that instructors “were committed to promoting an environment that respects and celebrates diversity” (much or very much of the time).
- The TLC program has experienced steady growth. A total of 869 first-time IUPUI students participated in the TLC program in fall 2015. During 2015, 24% of the fall first-time cohort participated.
- One-year retention rates were significantly higher for TLC participants compared to nonparticipants even when taking academic preparation and demographics into account for the 2007, 2010, 2011, and 2013 cohorts.
- The retention rate for TLC participants has not been consistently higher than the rate for nonparticipants. This is most likely due to the rapid growth the program and lack of fidelity in the model, and the fact that many programs to improve the retention of first year students have been implemented/and or have expanded over the past several years (e.g., Summer Bridge, peer mentoring, coaching, campus housing).
- The 2015 and 2014 TLC participants had significantly higher GPAs compared to nonparticipants even when taking into account HS GPAs, SAT Scores, Income Level, and Enrollment Date (a proxy for motivation and commitment).
- TLCs students who participate in service learning have higher levels of academic success, integrative learning, and civic engagement outcomes compared to TLC participants with no service learning.
- NSSE results suggest that TLC instructional teams are effectively emphasizing reflective and integrative learning and motivating students to make connections between their learning and the world around them. es.

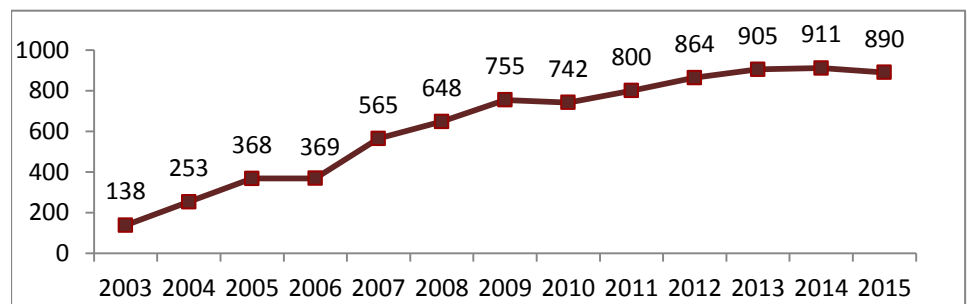
The purpose of this investigation was to enhance understanding of Themed Learning Community students’ characteristics, demographics, levels of engagement, self-reported learning gains, academic success outcomes, and persistence rates.

A Themed Learning Community (TLC) is two or more discipline-based courses and a First-Year seminar that a group of 25 students enroll in together, forming a tight-knit community of learners. The TLC faculty work as a team to explore the TLC theme in each course, helping students makes connections between courses that might otherwise seem disconnected. TLC teams also seek out co-curricular experiences that take learning beyond the classroom.

**Program Growth**

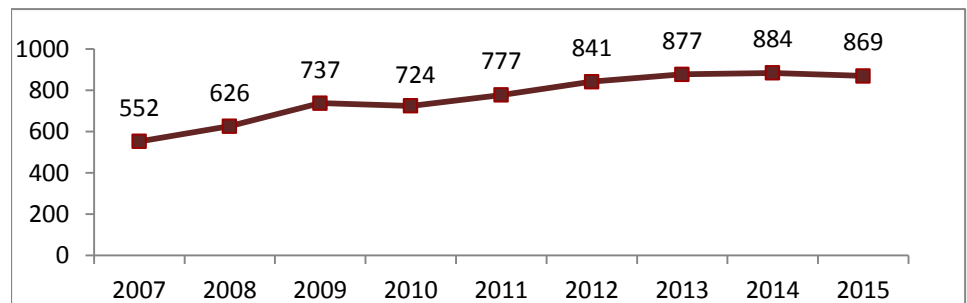
Shown in Figures 1, 2 and 3 below are the number of TLC participants each year. There has been steady growth in the program since 2003. A total of 39 sections were offered in 2015.

**Figure 1. TLC Program Growth Enrolled at Census**



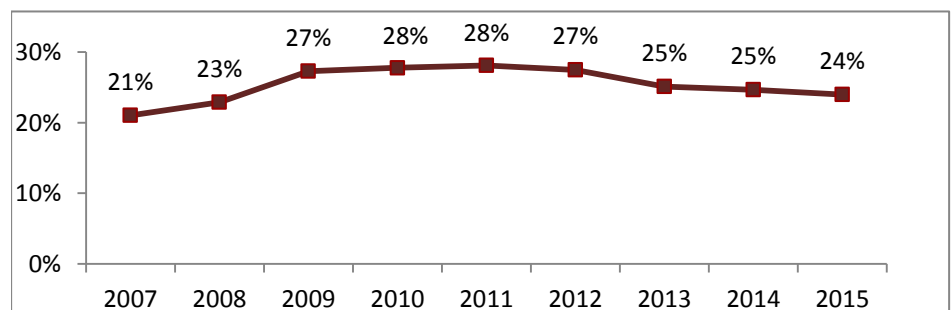
This graph includes TLC students who were enrolled at Fall census and includes students who may have withdrawn or were administratively withdrawn after census.

**Figure 2. TLC Program Growth Actual Participants**



This graph includes TLC students who actually participated and excludes those that withdrew or were administratively withdrawn after census

**Figure 3. Percent of Fall Beginning Cohort that Participated in a TLC**



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## TLC Retention Rates, Levels Academic Performance, and Graduation Rates

TLC participants tend to have higher one-year retention rates compared to nonparticipants, with the exception of the 2008, 2009, 2012, and 2014 program, even when academic preparation and background characteristics were taken into account. One-year retention rates for TLC participants and nonparticipants are shown in Figure 4.

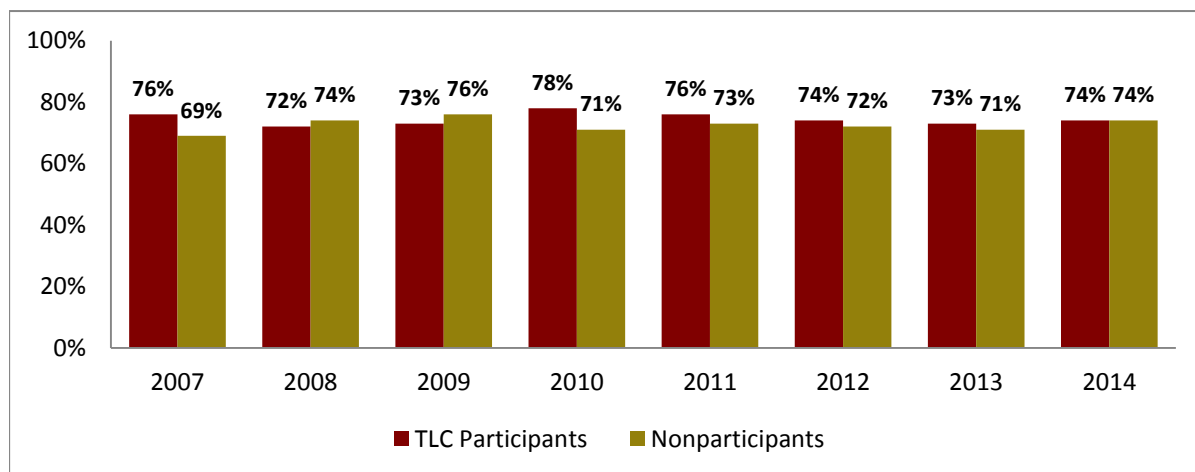
The retention rate for TLC participants has not been consistently higher than the rate for nonparticipants. This is most likely due to the rapid growth the program and lack of fidelity in the model, and the fact that many programs to improve the retention of first year students have been implemented/and or have expanded over the past several years (e.g., Summer Bridge, peer mentoring, coaching, campus housing).

2011 University College students who participated in First-Year programs (Summer Bridge, First-Year Seminars, TLCs, and Summer Bridge-TLCs) had significantly higher four-year graduation rates compared to nonparticipants.

The 2015 and 2014 TLC participants had significantly higher GPAs compared to nonparticipants even when taking into account HS GPAs, SAT Scores, Income Level, and Enrollment Date (a proxy for motivation and commitment). Results are shown in Tables 1-4.

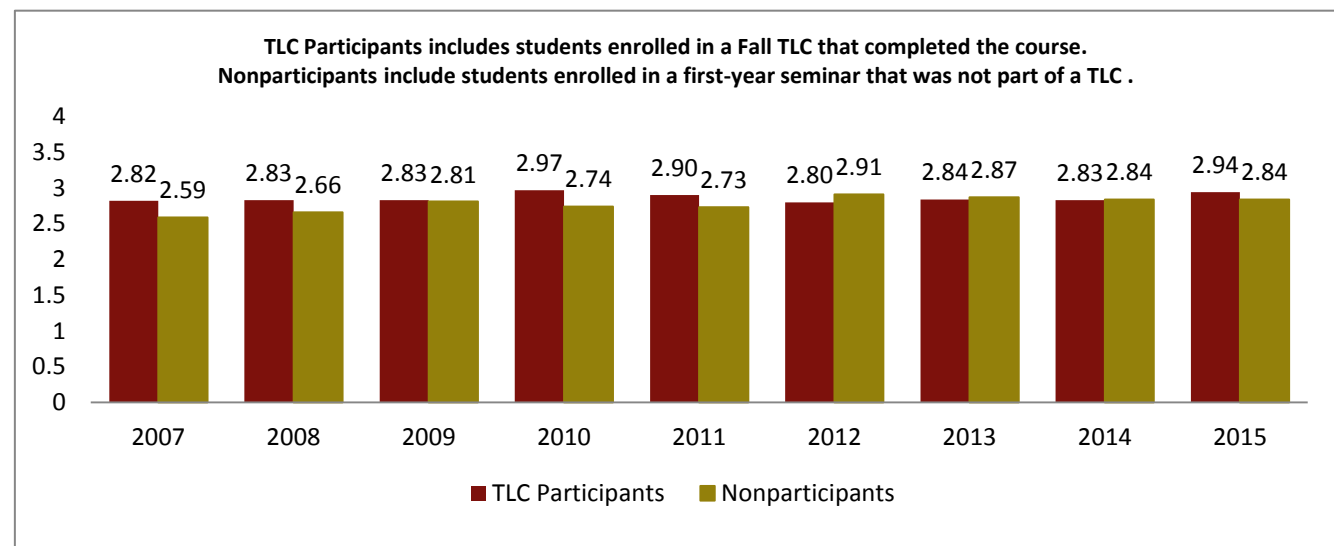
A noteworthy limitation of these investigations is that students self-select into TLCs and selection bias may have affected the internal validity of this study. Thus, the ability to make causal inferences based on the information is limited. It is possible that the positive effects of TLCs on academic performance are due to the fact that students who decide to enroll may have differed in substantial ways from students who decided not to enroll and these differences (not TLCs) may have caused the positive outcomes. Although important variables were treated as covariates in the statistical models, it is difficult to adjust for all possible self-selection factors using traditional statistical techniques and when experimental designs using random assignment are not employed.

**Figure 4. TLC Participants' One-Year Retention (Any IU) Rates Compared to Nonparticipants**

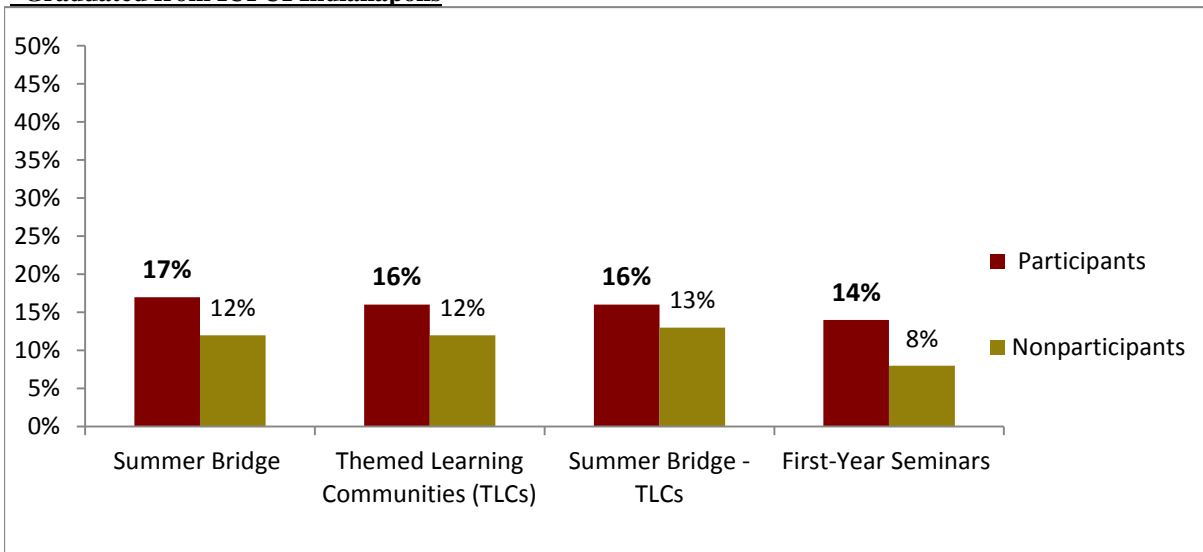


Note: One-year retention rates are significantly higher for TLC participants compared to nonparticipants even when taking academic preparation and demographics into account for the 2007, 2010, 2011, and 2013 cohorts (HS GPAs, SAT scores, gender, income level, and enrollment date).

**Figure 5. TLC Participants' Average Fall GPAs Compared to Nonparticipants**



**Figure 6. Indianapolis Only 2011 First-Time, Full-Time Cohort University College Students Only  
Four-Year Graduation Rates for University College Program Participants Compared to Nonparticipants  
\*Graduated from IUPUI Indianapolis**



Note 1: Graduation figures include bachelors and associate degrees and certificates awarded in 150% of time. The rates exclude Columbus beginners. The 2011 cohort four-year graduation figures are preliminary at this point in time and may not match official numbers once they are available.

Note 2: Summer Bridge Program participants:  $N = 343$  and nonparticipants  $N = 1470$ ; TLC participants:  $N = 553$  and nonparticipants  $N = 1260$ ; Summer Bridge-TLC participants:  $N = 223$  and nonparticipants= $1,590$ ; first-year seminar participants:  $N = 1534$  and nonparticipants  $N = 279$ .

**Table 1. Fall 2015 TLC Program Students' Academic Success Outcomes Compared to Non-Participating First-Time, Full-Time Students**

	Fall GPA	% Fall GPA Below 2.0	Fall-Spring Retention IUPUI IN
TLC	<b>2.94</b>	<b>14%</b>	91%
Nonparticipants	<b>2.84</b>	<b>18%</b>	89%

Note 1: Missing cases were excluded.

Note 2: Bolded items are statistically significant based on an independent samples t-test or chi-square test results ( $p < .001$ ).

\* Retention rate based on IUPUI Indianapolis only (includes all degree seeking – Bachelors, Associates, and Certificates).

**Table 2. ANCOVA Results: Fall 2015 TLC Participation and Fall GPA**

	N	Fall GPA	Adjusted Fall GPA*
TLC	844	<b>2.92</b>	<b>2.95</b>
Non-Participants	2282	<b>2.84</b>	<b>2.83</b>
Overall	3126	2.86	

Note : Missing cases were excluded. Bolded items are statistically significant based on Analysis of Covariance (ANCOVA) results ( $p < .001$ ). Partial Eta squared indicated a very a small effect size.

\* Covariates included in the model were High School GPA, SAT Score, Enrollment Date (proxy for student motivation), and Income Level (received a Pell Grant or Not dummy coded where 1 = Received Pell Grant and 0 = Did Not Receive a Pell Grant), and Gender (dummy coded where 1=Female and 0 = Not Female or Male).

**Table 3. ANCOVA Results: Fall 2014 TLC Participation and Fall GPA**

	N	Fall GPA	Adjusted Fall GPA*
TLC	858	<b>2.84</b>	<b>2.88</b>
Non-Participants	2176	<b>2.83</b>	<b>2.81</b>
Overall	3034	2.83	

Note: Missing cases were excluded. Bolded items are statistically significant based on Analysis of Covariance (ANCOVA) results ( $p < .05$ ). Partial Eta Squared indicated a very small effect size.

\* Covariates included in the model were High School GPA, SAT Score, Enrollment Date (proxy for student motivation), and Income Level (received a Pell Grant or Not dummy coded where 1 = Received Pell Grant and 0 = Did Not Receive a Pell Grant), and Gender (dummy coded where 1=Female and 0 = Not Female or Male).

**Table 4. ANCOVA Results: Fall 2014 TLC Participation and First-Year GPA**

	N	First-Year GPA	Adjusted First-Year GPA*
TLC	858	<b>2.72</b>	<b>2.76</b>
Non-Participants	2402	<b>2.72</b>	<b>2.70</b>
Overall	3260	2.72	

Note: Missing cases were excluded. Bolded items are marginally statistically significant based on Analysis of Covariance (ANCOVA) results ( $p < .10$ ). Partial Eta Squared indicated a very small effect size.

\* Covariates included in the model were High School GPA, SAT Score, Enrollment Date (proxy for student motivation), and Income Level (received a Pell Grant or Not dummy coded where 1 = Received Pell Grant and 0 = Did Not Receive a Pell Grant), and Gender (dummy coded where 1=Female and 0 = Not Female or Male).

### TLC Student Characteristics

Shown in Table 5 are the characteristics of Fall 2015 TLC students compared to nonparticipants. Results suggest that TLC students were significantly different in the following ways: lower SAT scores, higher fall course loads and more likely to attempt 15 or more credit hours, earlier registration dates, more likely to place into developmental math, more likely to live on campus and participate in summer bridge, and more likely to be female and younger.

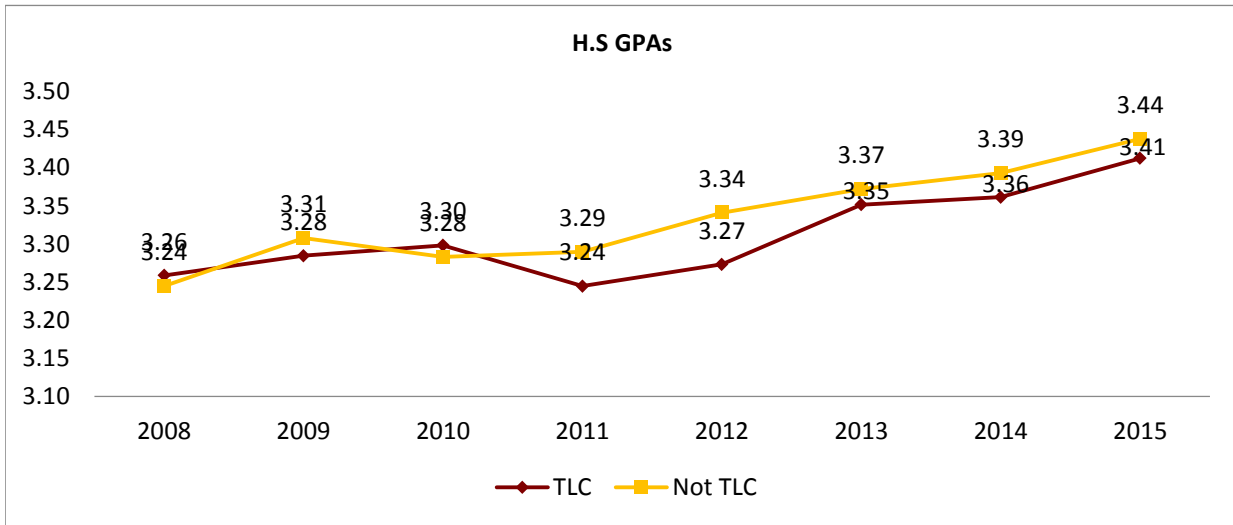
Figures 7-13 examine many factors over time that may be contributing to the variances in one-year retention rates for TLC participants compared to nonparticipants. There seems to be a trend for TLC students to have slightly lower High School GPAs and SAT scores. The proportion of African American students was higher in years 2008-2014 in TLCs, but was lower in Fall 2015 (6% TLCs compared to 8% nonparticipants). Students participating in TLCs tend to be lower income compared to nonparticipants (based on proportions receiving Federal Pell Grants). The proportion of TLC students living on campus has been consistently higher compared to nonparticipants. Although many TLC students participate in summer bridge (30% in 2015), there is a trend for more nonparticipants to also participate as the summer bridge program has expanded. More nonparticipants are also living on-campus compared to previous years.

**Table 5. 2015 Beginning Themed Learning Community (TLC) Student Characteristics Compared to Nonparticipants IUPUI IN (N= 869; 2753)**

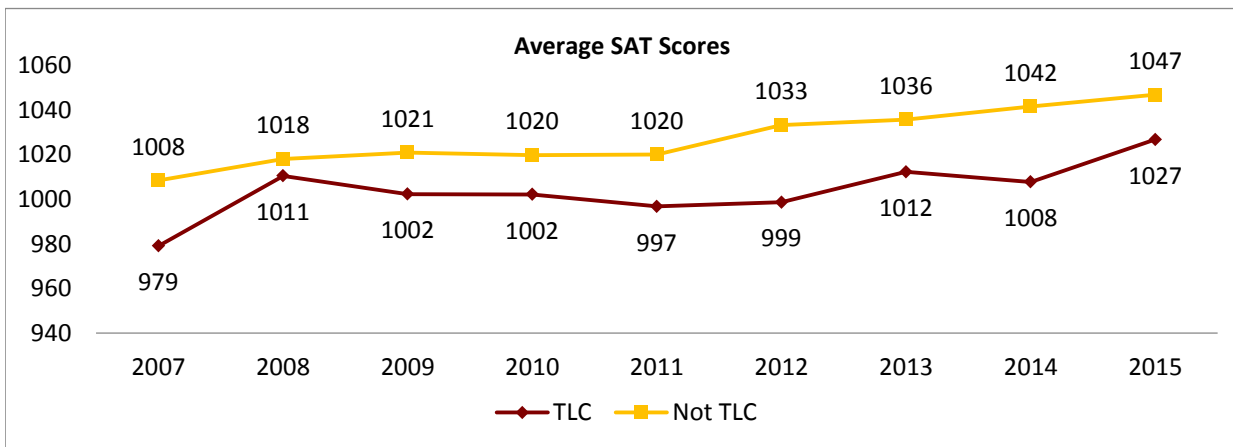
	TLC Mean or %	Nonparticipants Mean or %
High School GPA	3.41	3.44
SAT score	<b>1027</b>	<b>1047</b>
Dual/Direct Admit	41%	41%
Course load in hours attempted	<b>15.06</b>	<b>14.42</b>
Attempted 15 or More Hours Fall Semester	<b>72%</b>	<b>58%</b>
Registration Date (# days prior to census)	<b>61.33</b>	<b>54.91</b>
Placed into Developmental Math	<b>35%</b>	<b>30%</b>
Campus Housing	<b>46%</b>	<b>38%</b>
Summer Bridge	<b>30%</b>	<b>25%</b>
African American	6%	8%
Hispanic/ Latino(a)	8%	8%
First Generation	34%	34%
Female	<b>65%</b>	<b>56%</b>
Age	<b>18.24</b>	<b>18.34</b>
<b>2014 Financial Indicators</b>		
Federal Pell Grant	41%	39%
Twenty First Century Scholar	20%	21%
Level of Unmet Financial Need	\$4,224	\$4,405

Note: Bolded items are significantly different based on chi-square or independent t-test results ( $p < .05$ )

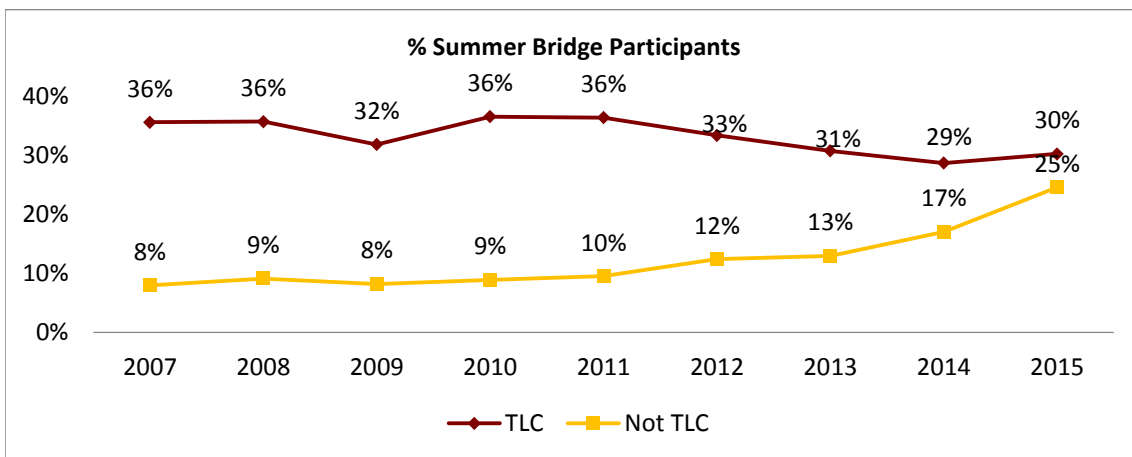
**Figure 7. TLC and Not TLC Students High School Grade Point Averages**



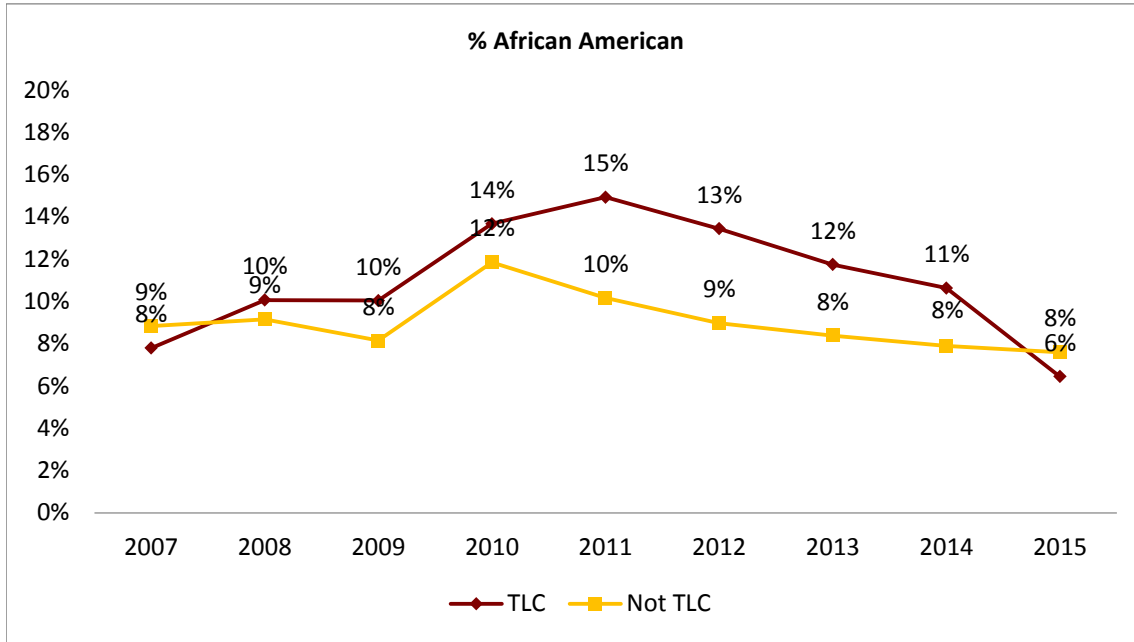
**Figure 8. TLC and Not TLC Students SAT Scores**



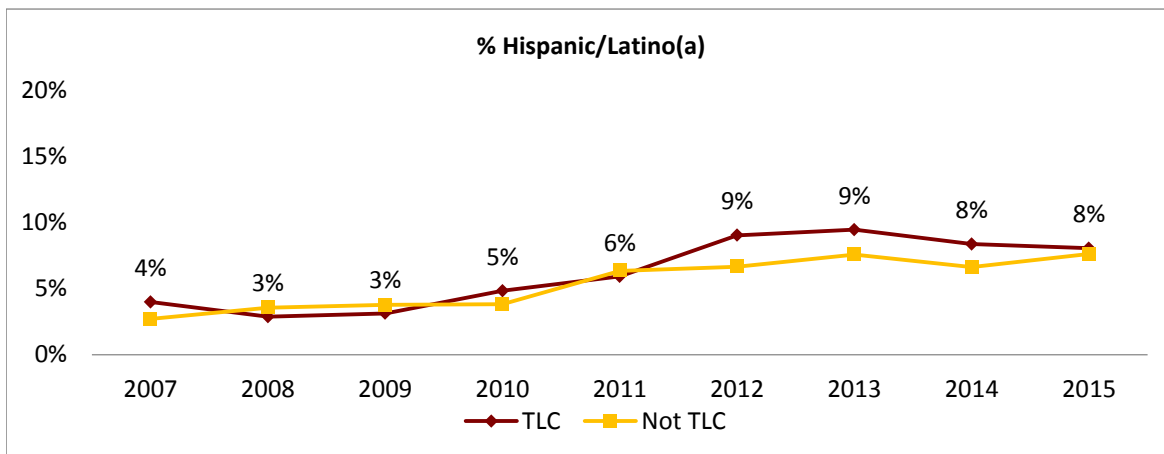
**Figure 9. TLC and Not TLC Students Summer Bridge Participation**



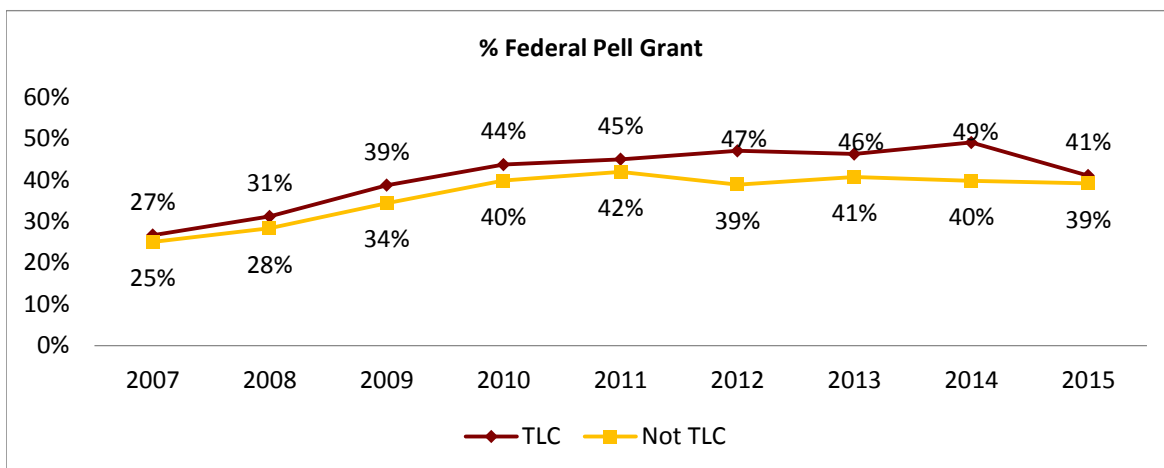
**Figure 10. TLC and Not TLC Percent of African American Students**



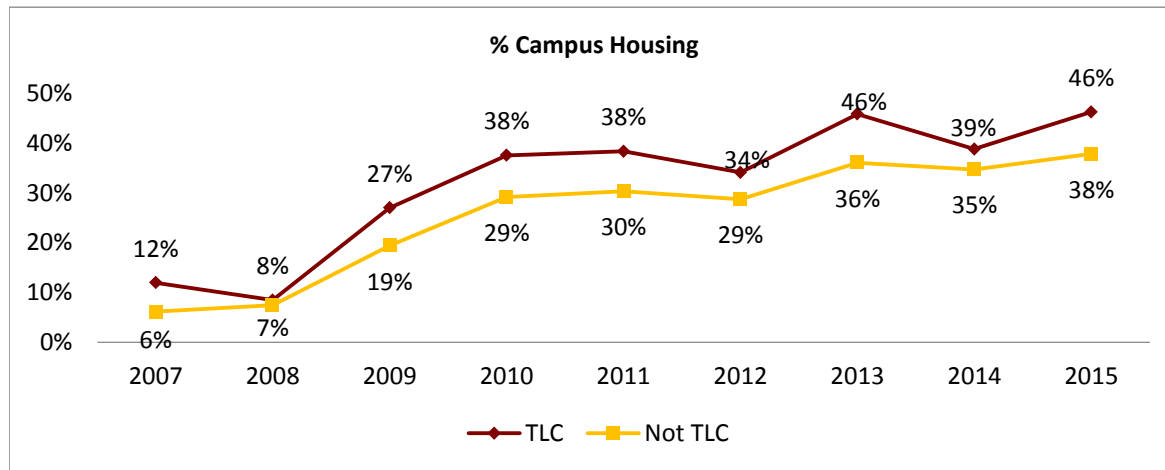
**Figure 11. TLC and Not TLC Percent of Latino(a)/Hispanic Students**



**Figure 12. TLC and Not TLC Students Percent of Who Received a Federal Pell Grant First Fall**



**Figure 13. TLC and Not TLC Students Percent of Who Lived in Campus Housing First Fall**



### TLC Program Participation by Special Populations, Program Type, and School

Results shown in Table 6 suggest that underserved and underrepresented students who participate in TLCs tend to have better academic success outcomes compared to those in the same groups who do not participate. For example, African American students who participated in the 2014 TLC program had a one-year retention rate of 73% (retained at IUPUI Indianapolis campus) compared to 54% for nonparticipants. The analyses did not account for differences between TLC participants and nonparticipants with regard to academic preparation, demographics, or other background characteristics.

The Summer Bridge-TLC (SB-TLC) program was designed to ensure that students have a foundation of developing academic skills, understanding college expectations, and developing a sense of connection and community prior to participating in the powerful pedagogies and engaging experiences offered in the TLC program. Summer Bridge interventions may help students tap the full power and potential of their high-impact practices (learning communities, seminars, service learning) offered during the first year. Students who participate in the SB-TLC program have consistently had higher retention rates and GPAs. Results are shown in Table 7.

**Table 6. TLC Program Participation and Academic Success Outcomes by Underserved and Underrepresented Groups**

Student Characteristic	TLC Participants				Nonparticipants			
	N	One-Year Retention (any IU)	One-Year Retention (IUPUI IN)	FY GPA	N	One-Year Retention (any IU)	One-Year Retention (IUPUI IN)	FY GPA
African American	94	<b>76%</b>	<b>73%</b>	<b>2.55</b>	213	<b>58%</b>	<b>54%</b>	<b>2.14</b>
Latino(a)/Hispanic	74	74%	70%	2.65	179	74%	67%	2.58
Afr. American, Latino(a) Two or More Races	209	<b>73%</b>	<b>70%</b>	<b>2.55</b>	494	<b>65%</b>	<b>61%</b>	<b>2.40</b>
First Generation	340	74%	<b>70%</b>	2.59	858	69%	<b>63%</b>	2.56
Received Federal Pell Grant (proxy for low income)	435	<b>72%</b>	<b>66%</b>	<b>2.63</b>	1077	<b>67%</b>	<b>61%</b>	<b>2.49</b>
Twenty First Century Scholars State Aid	246	<b>75%</b>	<b>67%</b>	2.61	473	<b>70%</b>	<b>62%</b>	2.50

Note 1: Bolded items significantly different based on independent samples t-test or chi-square results.

Note 2. Analyses do not account for differences between TLC participants and nonparticipants with regard to academic preparation, demographics, or other background characteristics.

**Table 7. Summer Bridge TLC Program Participation and Academic Success Outcomes**

	2015 Summer Bridge- TLC N=262	2015 TLC No SB N=607	2014 Summer Bridge- TLC N=253	2014 TLC No SB N=631	2013 Summer Bridge- TLC N=269	2013 TLC No SB N=608
One-Year Retention Rate (any IU)	---	---	<b>77%</b>	<b>73%</b>	<b>75%</b>	<b>71%</b>
One-Year Retention Rate (IUPUI IN)	---	---	<b>71%</b>	<b>68%</b>	<b>71%</b>	<b>67%</b>
Fall-Spring Retention (Any IU)	94%	91%	93%	91%	93%	90%
Fall-Spring Retention (IUPUI IN)	<b>94%</b>	<b>90%</b>	92%	90%	91%	89%
First Fall Semester GPA	3.05	2.90	<b>2.96</b>	<b>2.78</b>	<b>2.95</b>	<b>2.79</b>
First Fall GPA Below 2.0	12%	15%	<b>12%</b>	<b>18%</b>	<b>15%</b>	<b>19%</b>
Fall Math DFW Rate	26%	29%	28%	29%	<b>14%</b>	<b>20%</b>
First-Year GPA	---	---	<b>2.82</b>	<b>2.68</b>	<b>2.85</b>	<b>2.67</b>
First-Year GPA Below 2.00	---	---	18%	19%	<b>16%</b>	<b>21%</b>
<b>Comparison Measures</b>						
High School GPA	3.38	3.43	3.33	3.37	3.39	3.33
Average SAT Score	1000	1038	1001	1011	1000	1018
% Academic Honors Diploma	69%	70%	57%	65%	66%	62%
Average Unmet Financial Need	\$4,001	\$4,322	\$5,657	\$5,622	\$4,490	\$4,736
% Received Pell Grant	51%	37%	51%	48%	48%	45%
% African American, Latino(a), Two or More Races	22%	19%	25%	23%	25%	26%
% Female	<b>76%</b>	<b>61%</b>	<b>72%</b>	<b>62%</b>	<b>75%</b>	<b>63%</b>
% Living On Campus	<b>53%</b>	<b>43%</b>	<b>55%</b>	<b>32%</b>	<b>52%</b>	<b>43%</b>

Note: Bolded items are meaningfully (at least 5% difference) or significantly different based on independent samples t-test or chi-square results.

A series of analyses were conducted to determine if students who experience TLCs as part of a cohort model (same 25 or so students enrolled in all classes with the same TLC cohort students rather than experiencing some classes in which the TLC cohort students are integrated or embedded in a larger classroom). The hypothesis was that students in the intact TLC cohort model would have better outcomes than students that were embedded in larger classrooms. Results shown in Table 8 suggest that there are trivial differences between the cohort intact model and the no intact cohort model with regard to student outcomes (GPAs and retention rates). More investigation is necessary before any steps are taken based on these results. It is unclear if students have better TLC experiences when they are in classrooms with the same students in each class or have a few classes in which non-TLC cohort students are enrolled. Additionally, some school administrators may be reluctant to cap enrollment at 25 students.

**Table 8. Cohort TLC Program Participation and Academic Success Outcomes**

	2015 Cohort - TLC N=477	2015 No Cohort TLC N=374	2014 Cohort - TLC N=475	2014 No Cohort TLC N=392
One-Year Retention Rate (Any IU)	---	---	74%	74%
Fall-Spring Retention (Any IU)	---	---	92%	91%
One-Year Retention Rate (IUPUI IN)	---	---	70%	68%
Fall-Spring Retention (IUPUI IN)	94%	90%	90%	90%
First Fall Semester GPA	2.94	2.94	2.84	2.82
First Fall GPA Below 2.0	14%	14%	16%	16%
First-Year GPA	---	---	2.72	2.72
First-Year GPA Below 2.00	---	---	19%	18%
<b>Comparison Measures</b>				
High School GPA	3.40	3.44	3.36	3.36
Average SAT Score	1023	1033	999	1018
% Received Pell Grant	38%	44%	49%	49%

Note: Bolded items are meaningfully (at least 5% difference) or significantly different based on independent samples t-test or chi-square results.



A series of analyses were conducted to examine TLC participation by School Type. Students who participated in a TLC were compared to students who participated in the respective First-Year Seminar offered by the same school. This seemed like the most logical comparison group. Students in Business and Engineering TLCs had significantly better outcomes compared to nonparticipants.

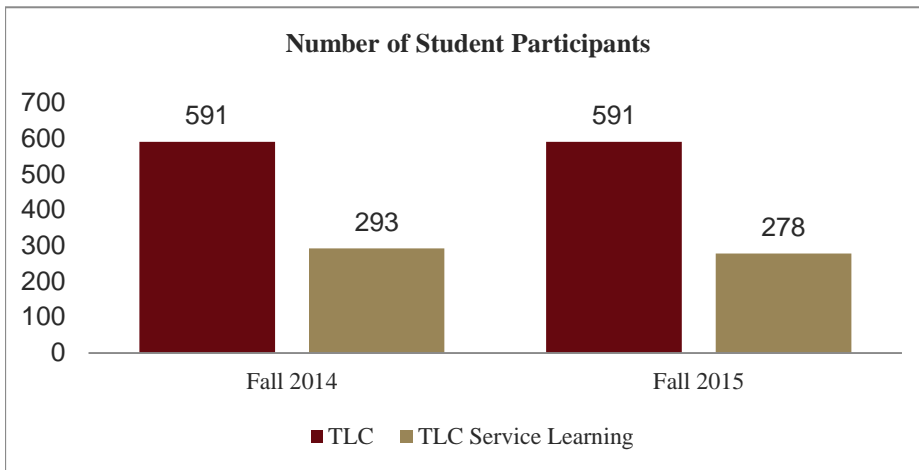
**Table 9. 2014 TLC Participants and Nonparticipants Academic Success Outcomes by School**

School	N	One-Year Retention IUPUI IN	First-Year GPA	High School GPA	Avg. SAT Score	% Direct Admit
<b>TLC Participants</b>						
Business	49	<b>71%</b>	<b>2.85</b>	<b>3.30</b>	1035	18%
Education	70	71%	2.83	<b>3.29</b>	1185	60%
Engineering	73	<b>82%</b>	<b>2.71</b>	<b>3.47</b>	984	60%
Herron	17	71%	2.82	<b>3.15</b>	968	100%
School of Public Health	44	<b>55%</b>	2.89	3.44	1116	68%
Science	97	76%	2.71	<b>3.42</b>	<b>1022</b>	<b>54%</b>
Liberal Arts	152	71%	2.77	3.38	1017	34%
School of Public and Environmental Affairs (SPEA)	58	69%	2.58	3.27	1039	29%
Social Work	24	75%	2.88	3.34	996	4%
Technology	41	61%	2.31	3.34	1122	66%
University College	259	63%	2.68	3.35	1029	2%
Total	884	69%	2.72	3.36	1023	34%
<b>TLC nonparticipants- First-Year Seminar Participants (all Enrolled at Census)</b>						
Business	374	<b>67%</b>	<b>2.69</b>	3.38	1040	28%
Education	31	74%	3.08	<b>3.50</b>	994	65%
Engineering	207	<b>73%</b>	<b>2.47</b>	3.43	1113	54%
Herron	102	70%	2.82	<b>3.38</b>	1028	96%
School of Public Health	61	<b>69%</b>	2.98	3.46	1010	69%
Science	340	75%	2.83	<b>3.37</b>	<b>1140</b>	<b>63%</b>
Liberal Arts	53	70%	2.88	3.63	935	14%
School of Public and Environmental Affairs (SPEA)	---	---	---	---	---	---
Social Work	1	---	---	---	---	---
Technology	103	64%	2.57	3.36	1056	66%
University College	915	64%	2.68	3.32	995	6%
Total	2425	69%	2.73	3.40	1044	37%

## Themed Learning Communities and Service Learning Leveraged for Student Success

TLCs students who participated in service learning experiences had higher levels of academic success, integrative learning, and civic engagement outcomes compared to TLC participants with no service learning. Figures 14 -18 and Tables 10-12 display the results of several analyses. Results suggest that there is a synergistic effect of experiencing three high-impact practices in the fall semester (Themed Learning Community with an embedded First-Year Seminar and service learning). The TLC experience seems to foster sense of community and belonging and allows students to explore a common topic through the lenses of different disciplines, while the service learning experiences offers students opportunities to analyze and solve problems in the community, critically reflect, and have meaningful experiences with diverse peers and community members.

**Figure 14. TLCs with Service Learning**



**Table 10. 2014 TLC-Service Learning Impact on First-Year GPA: ANCOVA Results**

	N	Avg. Cumulative GPA	Adjusted Cumulative GPA
TLC-Service Learning	286	2.81	<b>2.83</b>
TLC Not Service Learning	584	2.65	<b>2.64</b>
Overall	870	2.70	

**Table 11. 2015 TLC-Service Learning Impact on Fall GPA: ANCOVA Results**

	N	Avg. Cumulative GPA	Adjusted Cumulative GPA
TLC-Service Learning	272	2.99	<b>3.00</b>
TLC Not Service Learning	572	2.89	<b>2.89</b>
Overall	844	2.93	

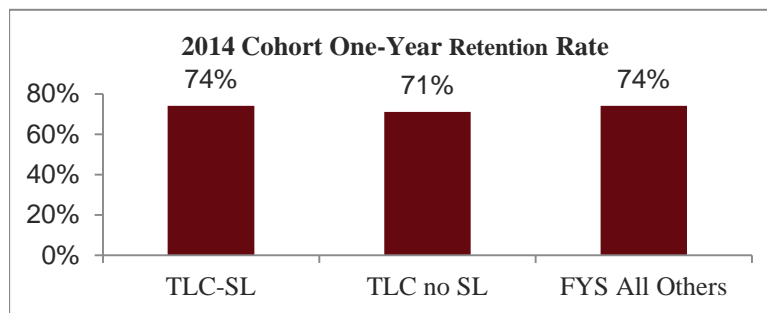
Notes for both Tables:

Note 1: Missing cases were excluded.

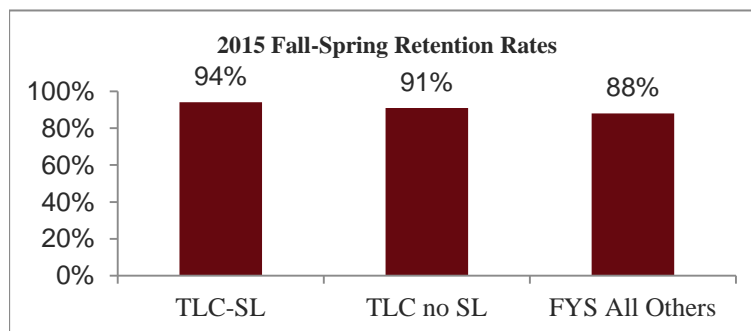
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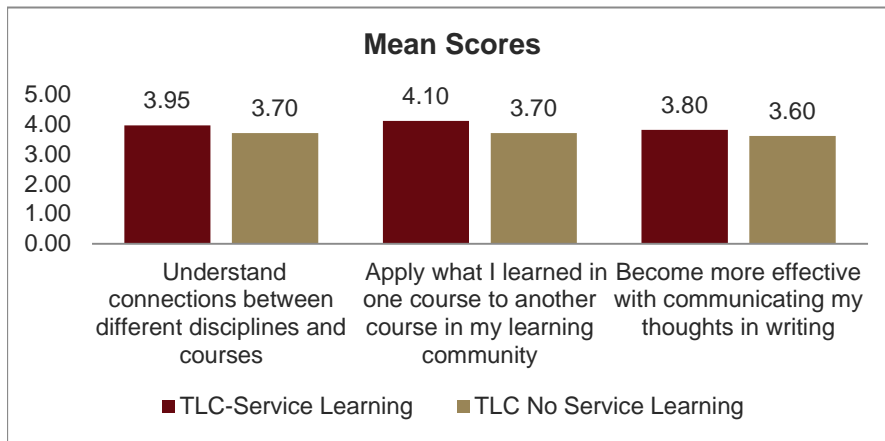
**Figure 15. 2014 TLC-Service Learning One-Year Retention Rates (Any IU)**



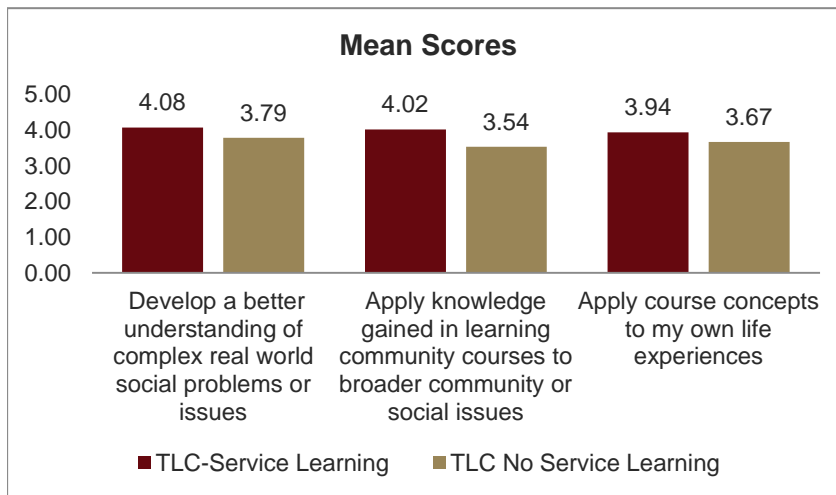
**Figure 16. 2015 TLC-Service Learning Fall-Spring Retention Rates (Any IU)**



**Figure 17. TLC-Service Learning: Integrative Learning**



**Figure 18. TLC-Service Learning: Civic Engagement Outcomes**



Notes refer to Figures

Note 1: All items significantly different based on independent samples t-test results. TLC-SL N=476, TLC No SL N=216

Note 2: Responses based on a 5 point Likert-Type scale where 1 = “Very Little”, 2 = “Little”, 3 = “Some”, 4 = “Much”, and 5 = “Very Much”

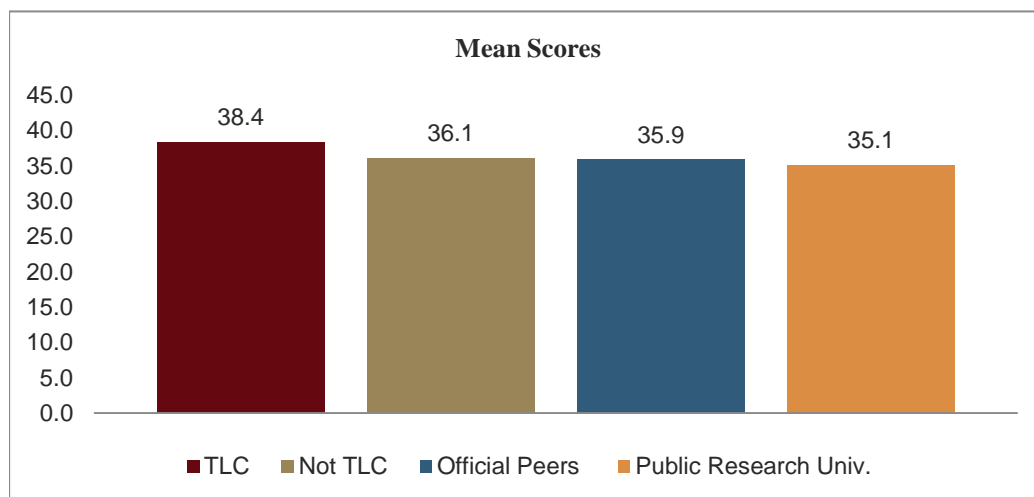
**Table 12. The Synergy Of Two High Impact Practices – TLC and Service Learning**

TLCs	Service Learning
<ul style="list-style-type: none"> <li>• Fosters sense of community belonging</li> <li>• Involve students with “big questions” that matter beyond the classroom.</li> <li>• Explore a common topic through the lenses of different disciplines</li> <li>• Integration of learning experiences</li> <li>• Engaging pedagogies</li> <li>• Co-curricular experiences</li> <li>• Campus engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities to analyze and solve problems in the community.</li> <li>• Critical structured reflection</li> <li>• Meaningful experiences with diverse peers and community members</li> <li>• Sense of purpose and</li> <li>• Community partners is good preparation for citizenship, work, and life.</li> </ul>

## TLCs and the National Survey of Student Engagement Results

TLC participants who responded to the spring 2015 NSSE survey had significantly higher scores on the Reflective and Integrative Learning Engagement Indicator compared to IUPUI students not participating in TLCs. The TLC students also had higher scores compared to First-Year students in the NSSE samples (IUPUI Official Peers and Public Research Universities). It is important to note that TLC participation was based on institutional student records rather than the NSSE self-report items. Results suggest that Fall 2014 TLC institutional teams were effectively emphasizing reflective and integrative learning and motivating students to make connections between their learning and the world around them, to reexamine their own beliefs, and to consider issues and ideas from others' perspectives.

**Figure 18. Engagement Indicator (EI): Reflective and Integrative Learning (TLC N= 200 and Not TLC N=576)**



Note 1: TLC and Not TLC means significantly different based on independent samples t-test results  $p = .034$

Note 2: Each EI is scored on a 60-point scale. To produce an indicator score, the response set for each item is converted to a 60-point scale (e.g., Never = 0; Sometimes = 20; Often = 40; Very often = 60), and the rescaled items are averaged. Thus a score of zero means a student responded at the bottom of the scale for every item in the EI, while a score of 60 indicates responses at the top of the scale on every item.

### Reflective & Integrative Learning

Personally connecting with course material requires students to relate their understandings and experiences to the content at hand. Instructors emphasizing reflective and integrative learning motivate students to make connections between their learning and the world around them, reexamining their own beliefs and considering issues and ideas from others' perspectives. Items include:

1. During the current school year, how often have you: Combined ideas from different courses when completing assignments
2. Connected your learning to societal problems or issues
3. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
4. Examined the strengths and weaknesses of your own views on a topic or issue
5. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective
6. Learned something that changed the way you understand an issue or concept
7. Connected ideas from your courses to your prior experiences and knowledge

From NSSE [http://nsse.indiana.edu/html/engagement\\_indicators.cfm#a2](http://nsse.indiana.edu/html/engagement_indicators.cfm#a2)

## Fall 2015 TLC End-Of Course Questionnaire Results

A total of 389 TLC students responded to the end-of course evaluation in Fall 2015. The response rate was 45% which was a much lower rate compared to previous versions of paper-based questionnaires that were completed by students during class time (previous response rates ranged from 80-97%). The course evaluation was distributed to students at the end of the semester. The instrument was designed to assess self-reported learning gains, satisfaction with learning experiences, perceptions of community, quality of faculty and peer interactions, and students' feelings of a welcoming and inclusive environment.

Results of multivariate linear regression procedures suggested that levels of integration, community, and fostering an inclusive environment that respects diversity significantly predicted students' levels of satisfaction with their learning experiences (see Table 13 below). The more students experienced a strong sense of community and belongingness during their TLC experiences, the higher their intentions to persist (good proxy for one-year retention rates. These results have implications for practice and pedagogy. Instructional team members who ensure that they are designing environments, assignments, and curricula in which students experience integrative thinking, sense of community, and feel welcomed and respected based on their diverse background characteristics are most likely to have satisfying learning experiences in TLCs..

Shown in Figures 18-22 are the results of students' responses to all items. Overall, 81% of the TLC students were satisfied or very satisfied with their learning experiences. The majority of students also engaged in co-curricular learning experiences and campus activities. It is important to note that the vast majority of students (92%) who responded to the questionnaire reported that they completed a required integrative assignment. A total of 86% felt that instructors "were committed to promoting an environment that respects and celebrates diversity" (much or very much of the time).

### **Table 13: Predictors of Overall Learning Satisfaction and Intention to Persist**

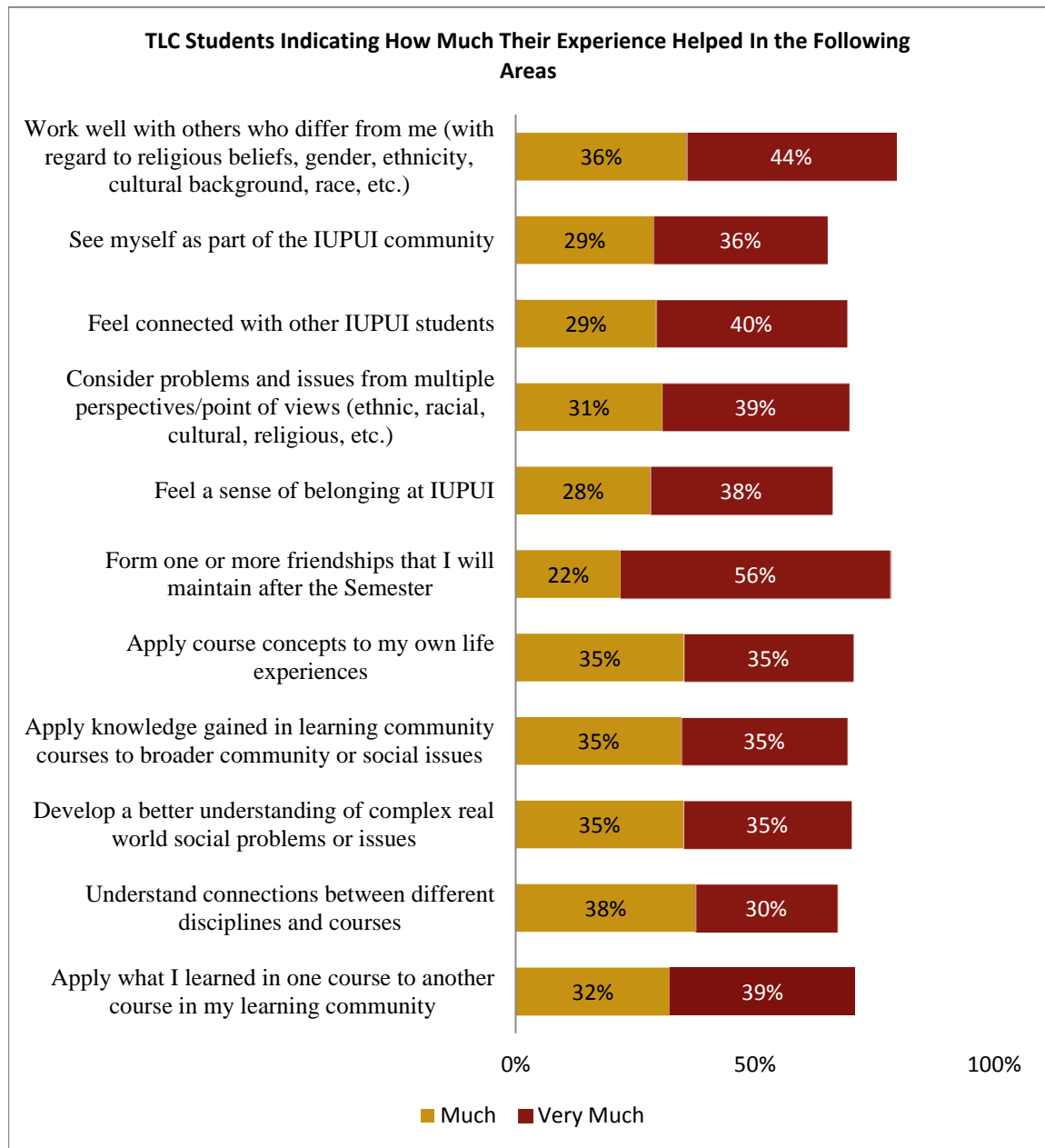
#### **Factors that significantly predict overall satisfaction with TLC learning experiences:**

- **Integrative Thinking and Learning**
  - Understand connections between different disciplines and courses
  - Apply what I learned in one course to another course in my learning community
  - Apply knowledge gained in learning community courses to broader community or social issues
  - Apply course concepts to my own life experiences
- **Creating Inclusive Environment**
  - Respected me and my social identities (religious beliefs, gender, race, sexual orientation, etc.)
  - Had respect for diverse perspectives and identities. (religious beliefs, gender, race, sexual orientation, etc.)
  - Encouraged me to think about problems and issues from multiple perspectives / points of view (ethnic, racial, cultural, religious, etc.)
  - Made intentional efforts to welcome me.
  - Was committed to promoting an environment that respects and celebrates diversity.
- **Sense of Belonging and Community**
  - Form one or more friendships that I will maintain after the Semester
  - Feel a sense of belonging at IUPUI
  - Feel connected with other IUPUI students
  - See myself as part of the IUPUI community

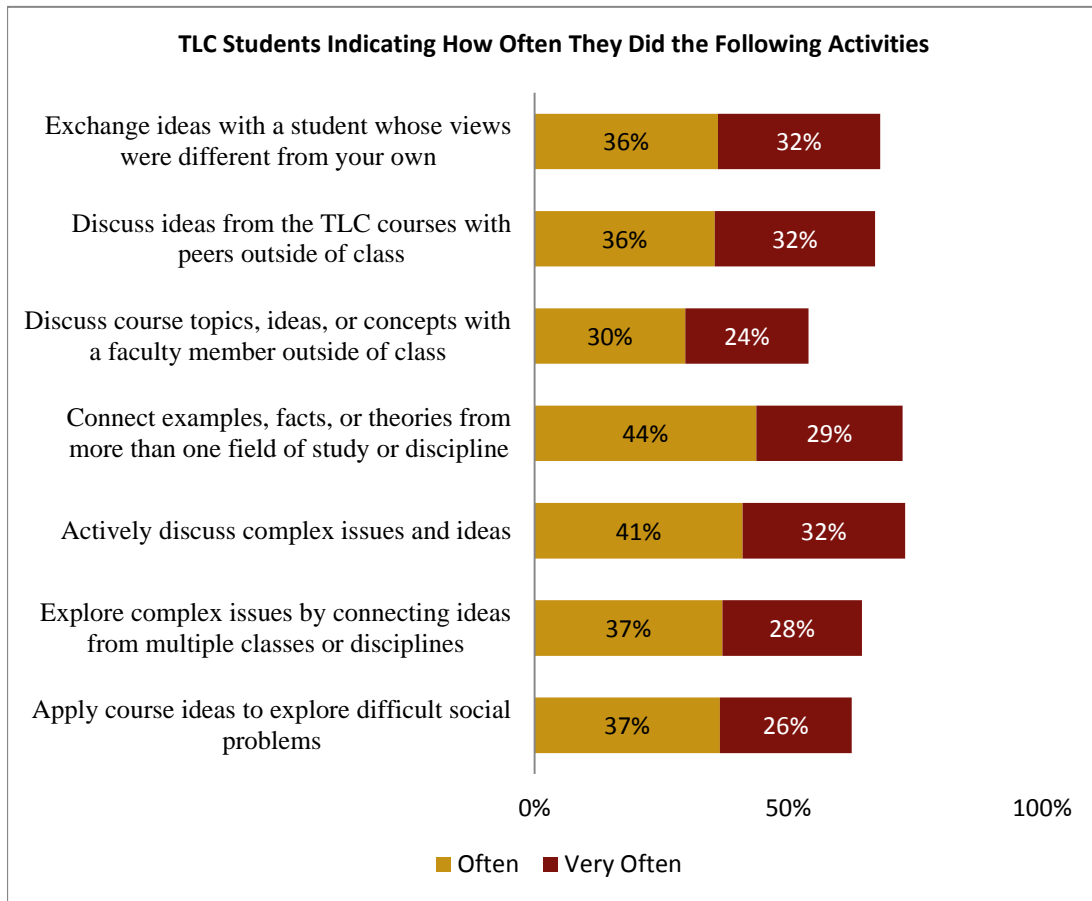
#### **Factor that significantly predicts students' intentions to persist (proxy for retention):**

- **Sense of Belonging and Community**

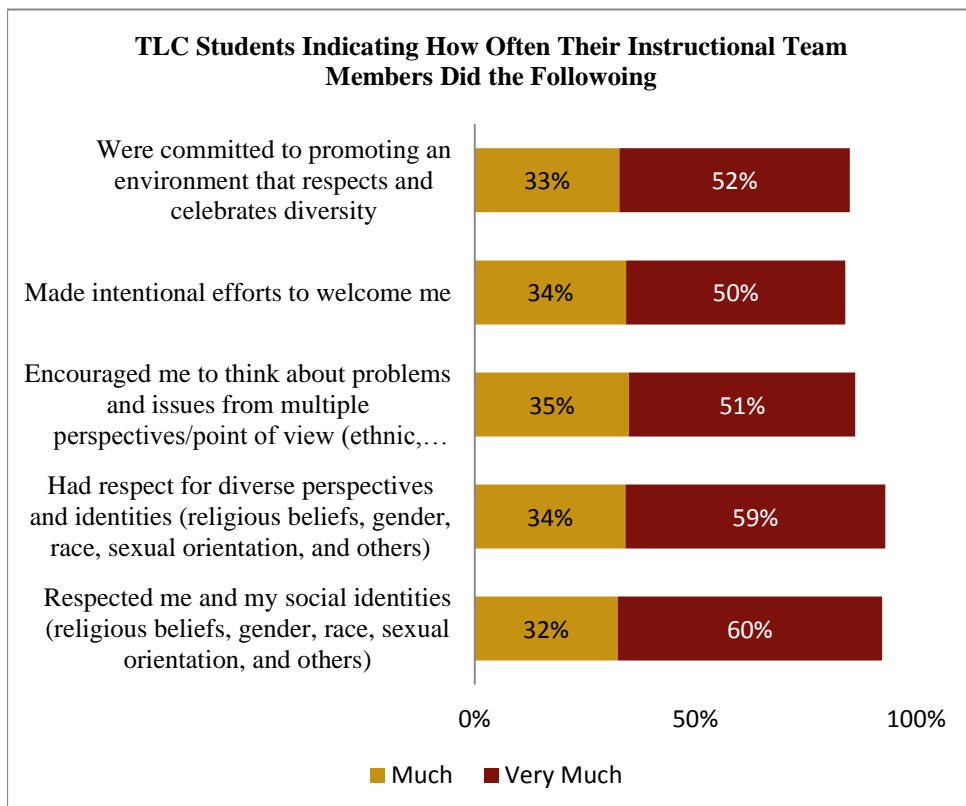
**Figure 18. TLC Self-Reported Learning Gains and Sense of Community**



**Figure 19. TLC Self-Reported How Often Integration of Learning Experienced**

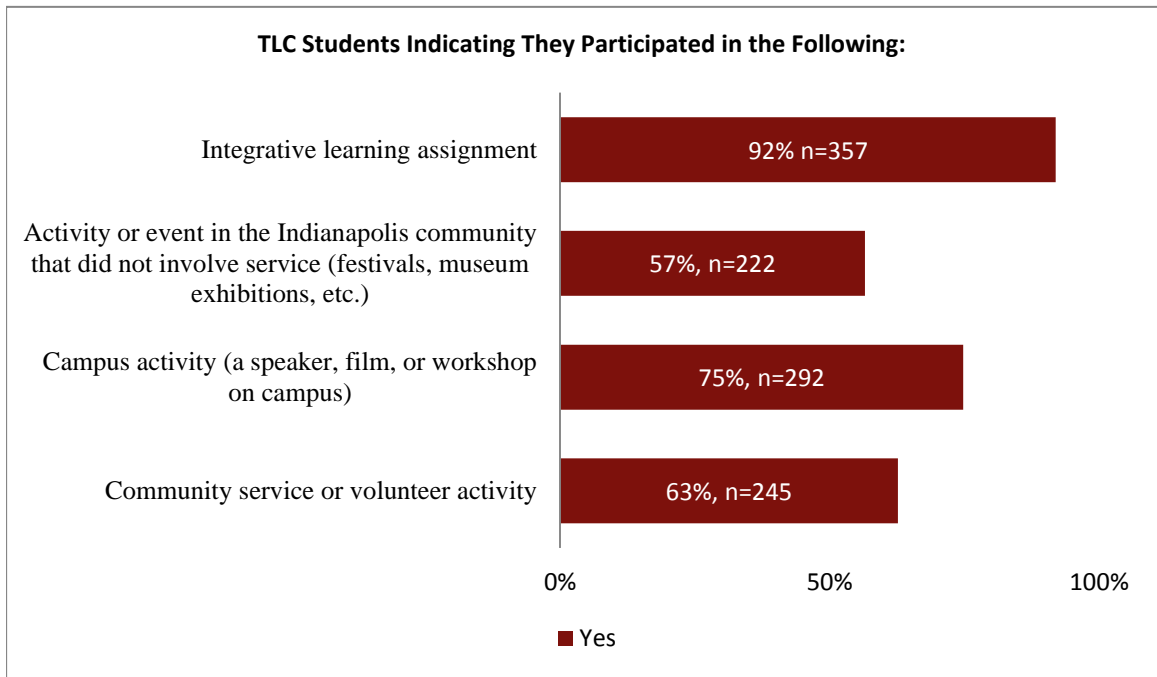


**Figure 20. TLC Students' Perceptions of Inclusiveness and Respect for Diversity**

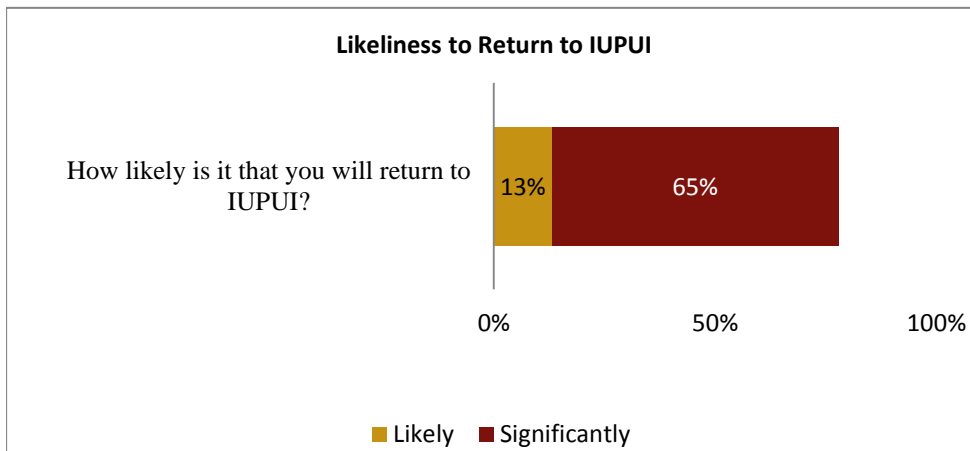
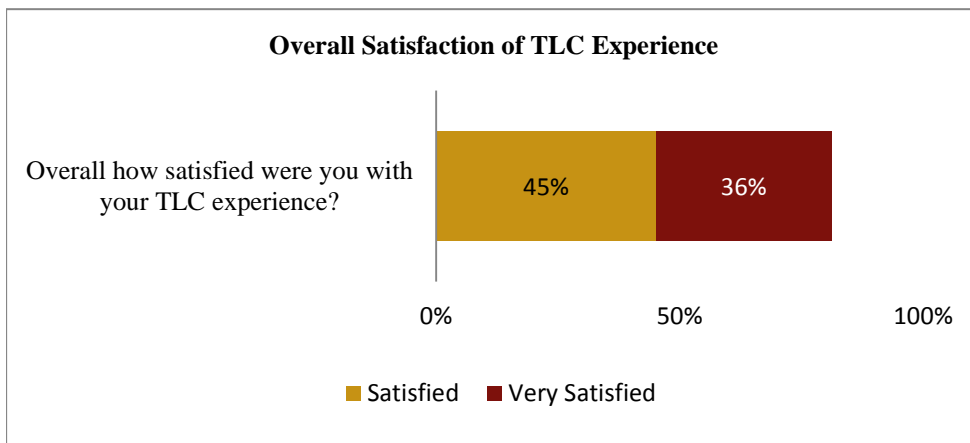




**Figure 21. TLC Students' Levels of Engagement and Integrative Learning Assignments**



**Figure 22. TLC Students' Perceptions of Overall Satisfaction and Intentions to Persist (Proxy for Retention)**



## Conclusion

The degree to which TLC instructional teams foster integrative thinking and connections between courses, create a sense of community, and promote an inclusive environment that respects diversity positively predicts student satisfaction with their learning experiences. The higher the levels of students' perceptions of sense of community and belongingness created by the TLC experience, the higher their intentions to persist or return to IUPUI (a good proxy for retention). These results have implications for instructional strategies, activities, and assignments implemented by instructional teams.

The TLC program has experienced steady growth. A total of 869 first-time IUPUI students participated in the TLC program in fall 2015. During 2015, 24% of the fall first-time cohort participated. The rapid growth of the TLC program may have had negative effects on the fidelity of the TLC model as instructional teams are assembled quickly in order to ensure enough instructors for each section.

TLC students are different in the following ways compared to nonparticipating first-year students: slightly lower HS GPAs, lower SAT scores, higher fall course loads and more likely to attempt 15 or more credit hours, earlier registration dates, more likely to place into developmental math, more likely to live on campus and participate in summer bridge, and more likely to be female and younger.

TLC participants tend to have significantly higher one-year retention rates compared to nonparticipants, with the exception of the 2008, 2009, 2012, and 2014 program. The retention rate for TLC participants has not been consistently higher than the rate for nonparticipants. This is most likely due to the rapid growth the program and lack of fidelity in the model, and the fact that many programs to improve the retention of first year students have been implemented/and or have expanded over the past several years (e.g., Summer Bridge, peer mentoring, coaching, campus housing).

The 2015 and 2014 TLC participants had significantly higher GPAs compared to nonparticipants even when taking into account HS GPAs, SAT Scores, Income Level, and Enrollment Date (a proxy for motivation and commitment). Results suggest that the transitional assistance, sense of community, the reflective and integrative learning, and engaging pedagogies experienced during the program may be positively influencing student academic performance.

Underserved and underrepresented students who participate in TLCs tend to have better academic success outcomes compared to those in the same groups who do not participate. This finding suggests that it may be a good practice for TLC administrators and campus leaders to reach out to specific groups of students such as African American students to encourage participation.

Students who participate in the SB-TLC program have consistently had higher retention rates and GPAs compared to students who participate in a TLC not linked to the summer bridge program. The Summer Bridge-TLC (SB-TLC) program was designed to ensure that students have a foundation of developing academic skills, understanding college expectations, and developing a sense of connection and community prior to participating in the powerful pedagogies and engaging experiences offered in the TLC program. It is noteworthy that the increased number summer bridge participants among TLC nonparticipants may be attenuating differences in retention between TLC participants and nonparticipants.

There are variances between different implementations of TLCs by school in terms of academic success outcomes. Students who participate in TLCs offered by the Kelly School of Business and School of Engineering have better outcomes compared to nonparticipants. There may be effective practices implemented by Business and Engineering instructional teams that could be shared with other instructional teams.

Students who experience TLCs as part of a cohort model (same 25 or so students enrolled in all classes with the same TLC cohort students) did not have better academic success outcomes compared to students who experienced some classes in which the TLC cohort students were integrated or embedded in a larger classroom. More investigation is necessary before any steps are taken based on these results. It is unclear if students have better TLC experiences when they are in classrooms with the same students in each class or have a few classes in which non-TLC cohort students are enrolled. Additionally, some school administrators may be reluctant to cap enrollment at 25 students.

TLCs students who participate in service learning have higher levels of academic success, integrative learning, and civic engagement outcomes compared to TLC participants with no service learning. Results suggest that there is a synergistic effect of experiencing three high-impact practices in the fall semester (Themed Learning Community with an embedded First-Year Seminar and service learning).

NSSE results suggest that TLC instructional teams are effectively emphasizing reflective and integrative learning and motivating students to make connections between their learning and the world around them, and to consider issues and ideas from others' perspectives.