

# **AB705 Research: Trend of Access and One-Year Throughput Rates in Transfer Level English and Math**

## **Purpose:**

This report provides the trend in access and throughput to transfer level English and math of fall cohorts from 2015 to 2019. Data are also provided by gender and ethnicity to show from an equity perspective. Key data points include

- Access to transfer level English/Math
- Throughput within one year (two regular terms) from starting the first English/Math course
- Access and throughput data by gender and by ethnicity
- Fall 2019 Cohort only: throughput rate by HS GPA and Student profiles of 1YR Throughput Completers and Noncompleters.

## **Fall cohorts selected for tracking:**

English cohorts are credit students who enrolled in the target fall term and attempted their first English course within the same term or the summer prior the target fall term. Each fall cohort was tracked through the spring term in the same academic year for one-year throughput completion.

Similarly Math cohorts are credit students who enrolled in the target fall term and attempted their first math course within the same term or the summer prior the target fall term. Each fall cohort was tracked through the spring term in the same academic year for one-year throughput completion.

Please note that although the first course enrolled by cohorts are highly likely to relate to placement by assessment, it's not exclusively so due to the possibility of self-select of eligible courses.

## **Definitions:**

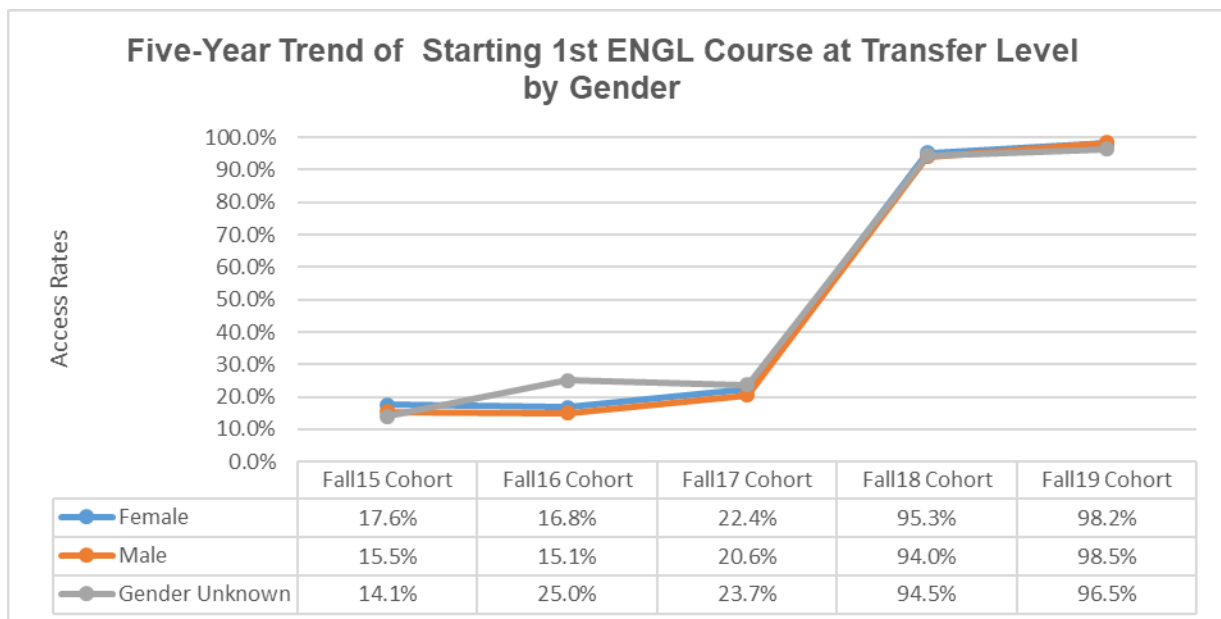
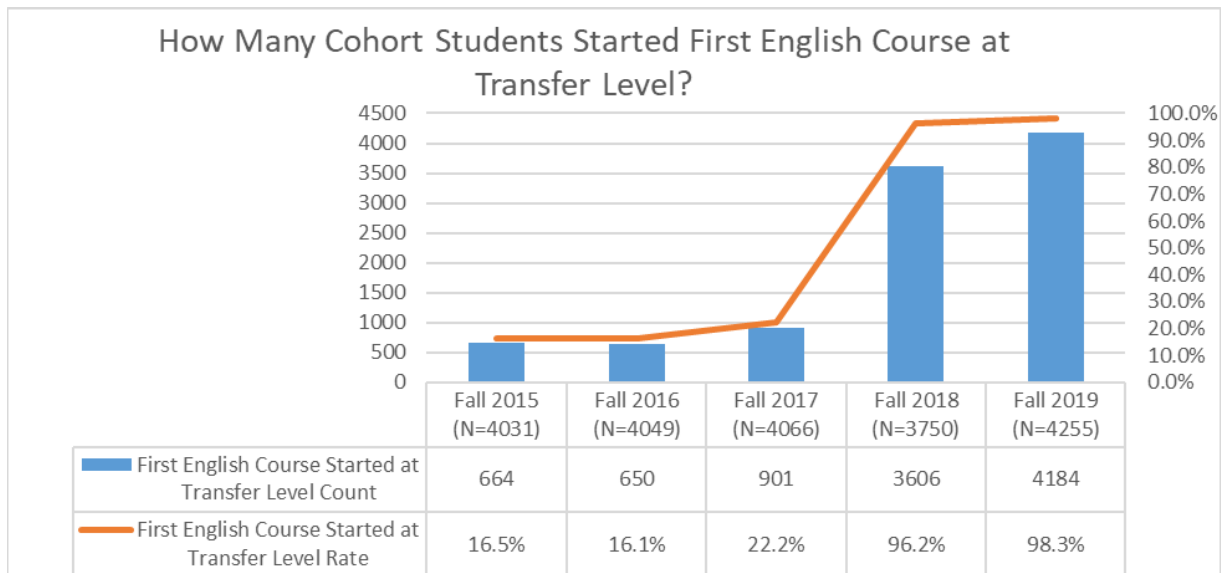
**Access Rate** – the proportion of a cohort of students who start their first credit English or math course at transfer level

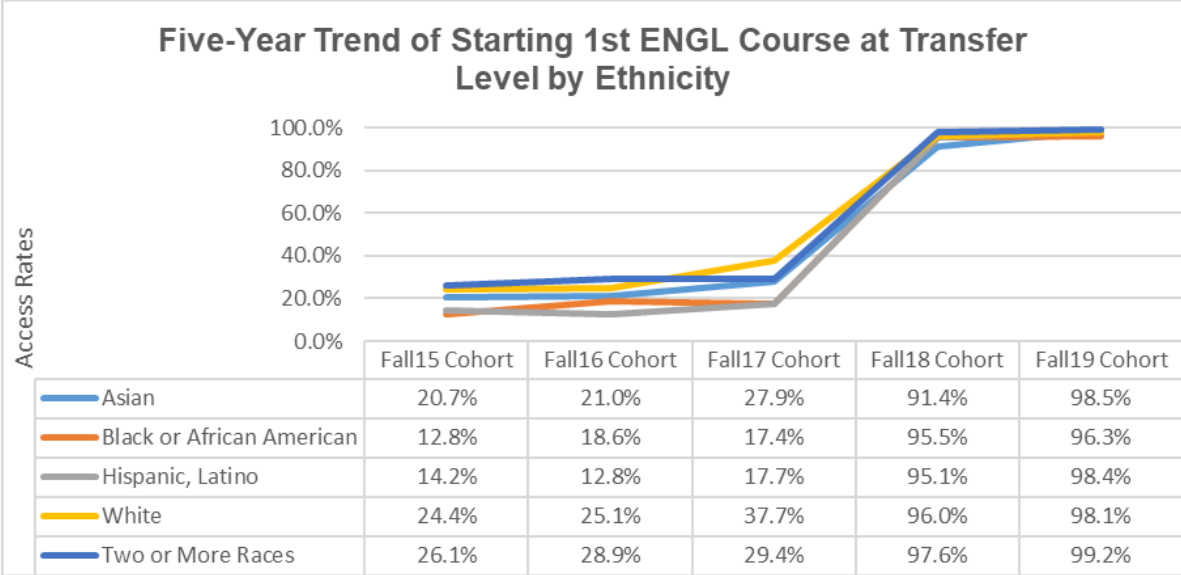
**Throughput Rate (based on AB705 guidelines)** - the proportion of a cohort of students who complete a transfer level math or English course within a one year timeframe (two regular semesters) from when they start the subject course.

## ENGLISH COHORTS: ACCESS TO TRANSFER LEVEL COURSE

### Highlights of findings:

- Access rate in transfer level English increased drastically for fall cohorts from 16.5% to 98.3% over five-year period with the big jump starting with Fall 2018 cohort
- Six times more students started at transfer level English with Fall 2019 cohort than with Fall 2015 cohort
- Gender gap in access rates diminished by fall 2019
- Ethnicity gap in access rates improved drastically by fall 2019.

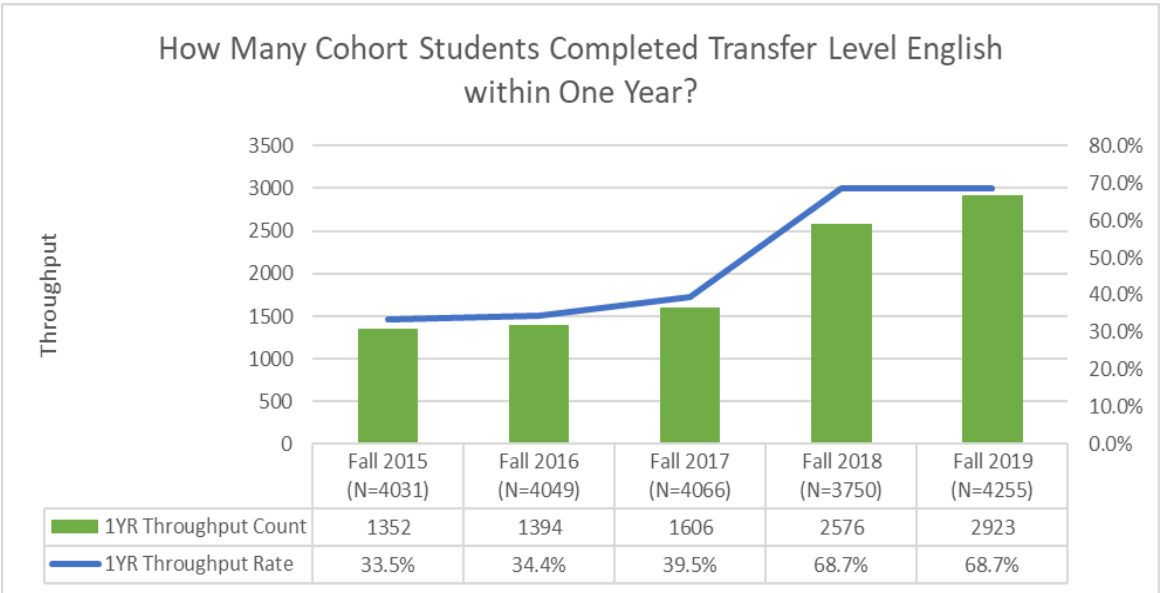




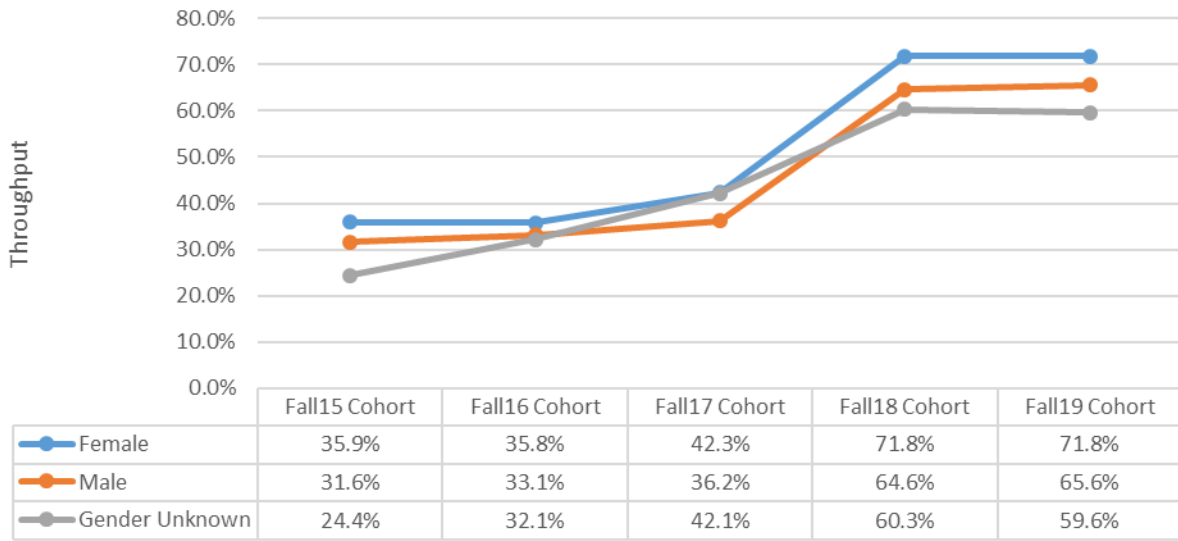
### ENGLISH COHORTS- COMPLETION OF TRANSFER LEVEL COURSE WITHIN ONE YEAR AFTER STARTING (THROUGHPUT)

Highlights of findings:

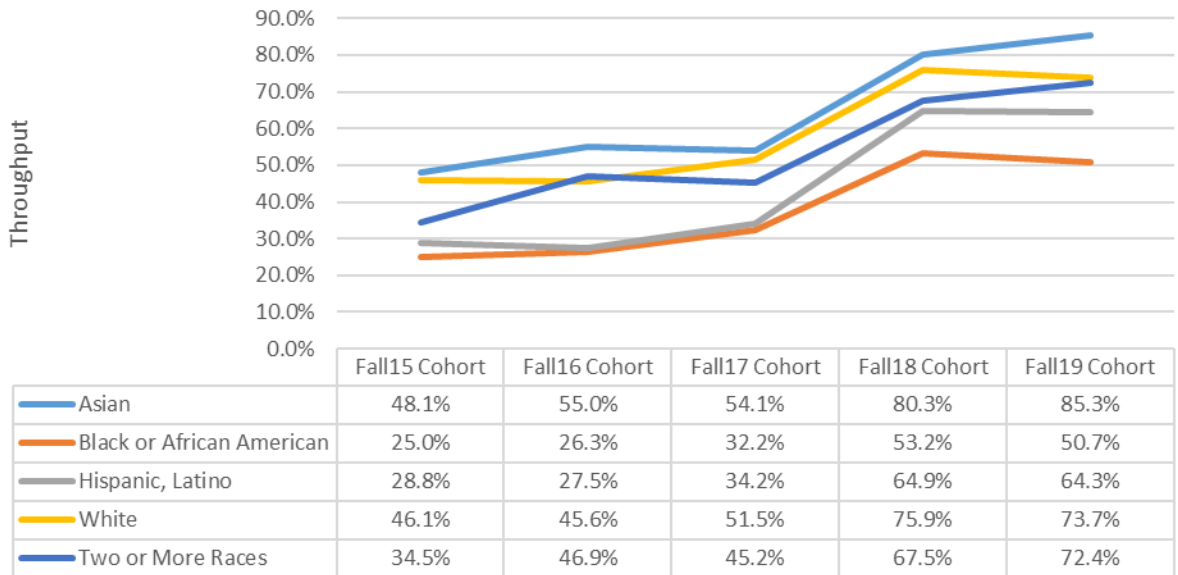
- 1YR throughput rate in completing transfer level English increased from 33.5% to 68.7% over 5YR
- Number of students completing transfer level English within one year more than doubled in fall 2019 than in 2015
- No equity gap identified with gender group
- Although the throughput rates improved overall, equity gap remained with African American and Latinx students.



### Five-Year Trend of 1YR English Throughput Rate by Gender



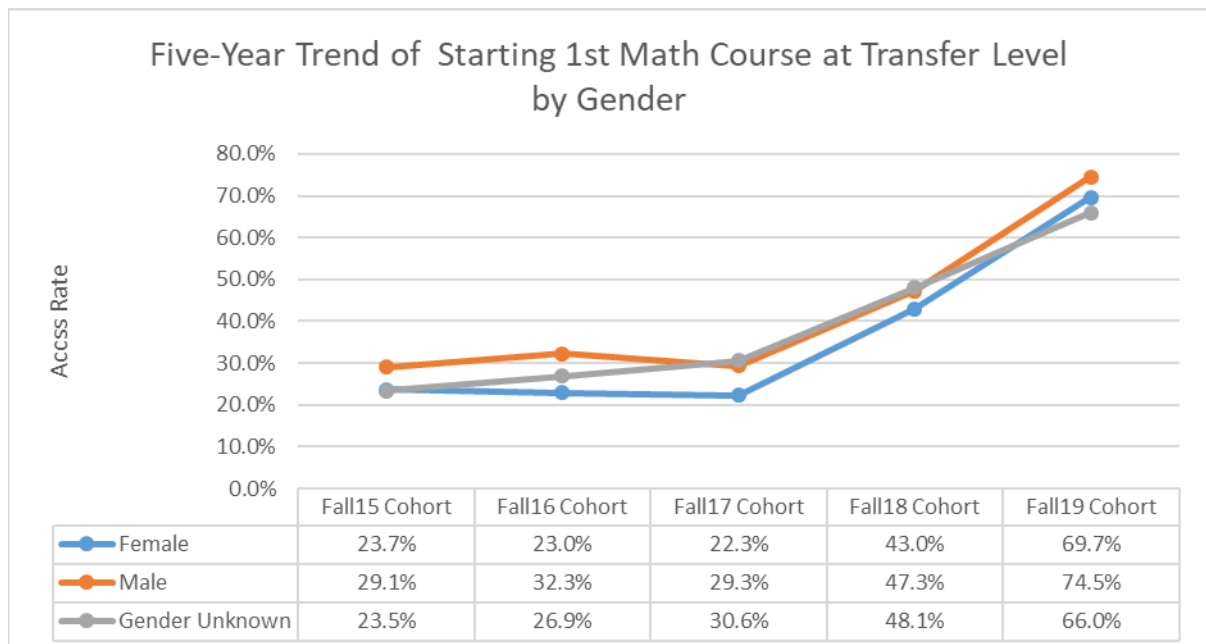
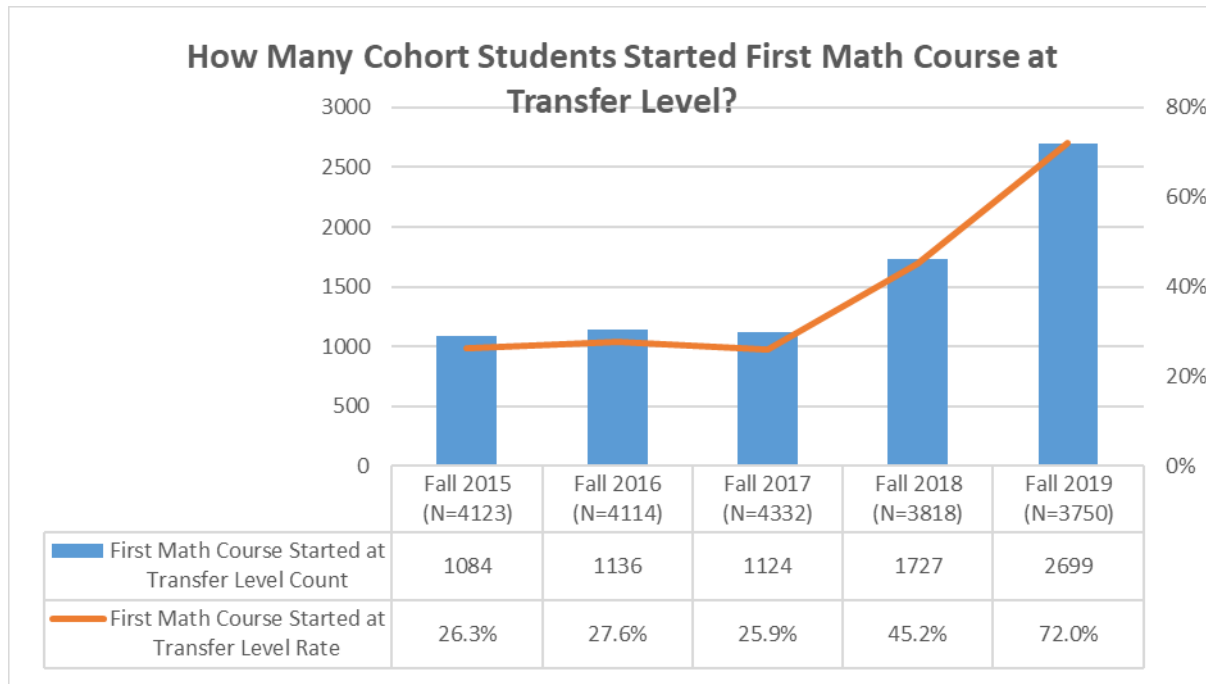
### Five-Year Trend of 1YR English Throughput Rate by Ethnicity

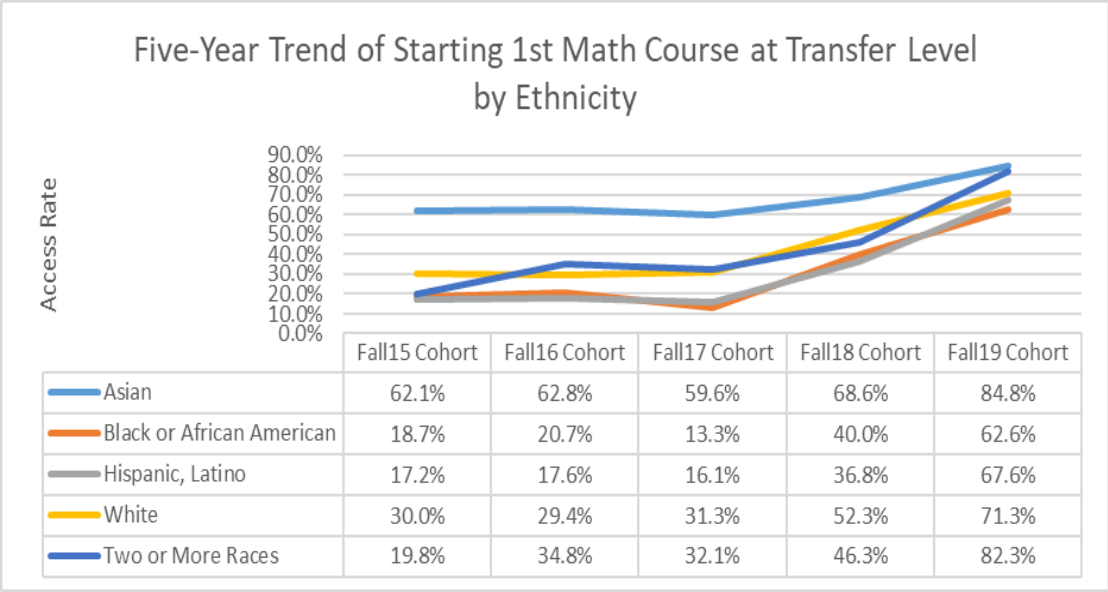


## MATH COHORTS - ACCESS TO TRANSFER LEVEL COURSE

Highlights of findings:

- Access rate in transfer level math increased from 26.3% to 72.0% over 5YR
- 2.5 times more students started at transfer level math in fall 2019 than in 2015
- No equity gap identified with gender group
- Ethnicity gap in access rates improved over 5YR.

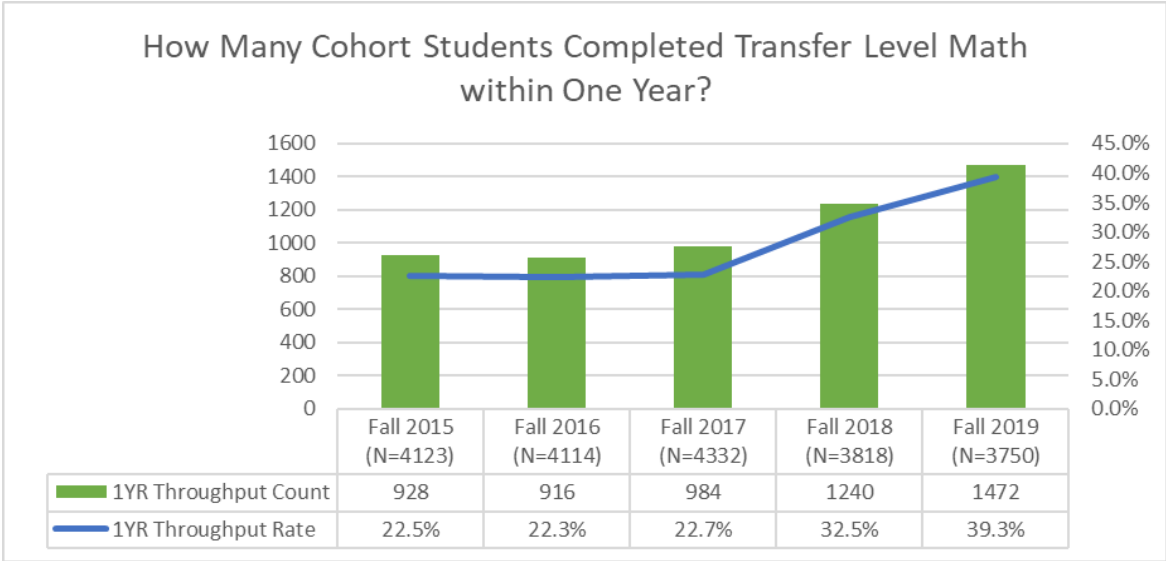




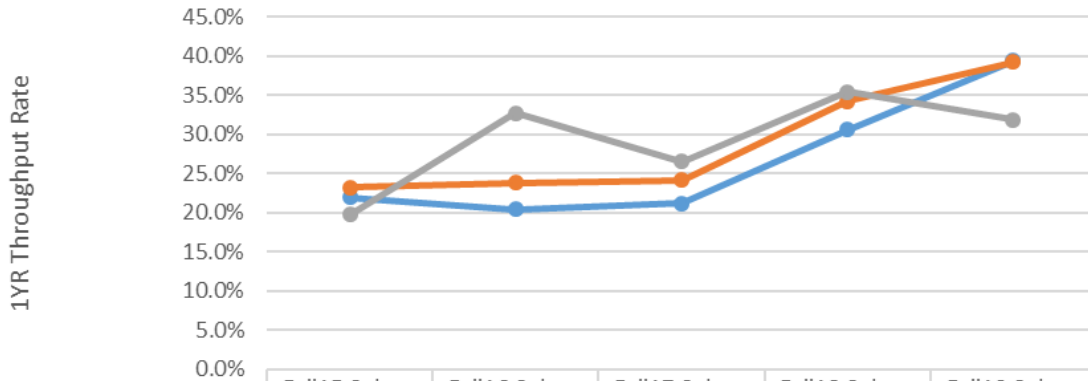
## MATH COHORTS: COMPLETION OF TRANSFER LEVEL COURSE WITHIN ONE YEAR AFTER STARTING (THROUGHPUT)

Highlights of findings:

- 1YR throughput rate in completing a transfer level math course increased from 22.5% to 39.3% from fall 2015 to fall 2019
- Number of students completing transfer level math within one year increased 59% in fall 2019 from fall 2015
- No equity gap was identified with gender group
- Although the throughput rates improved overall, equity gap remained with African American and Latinx students.

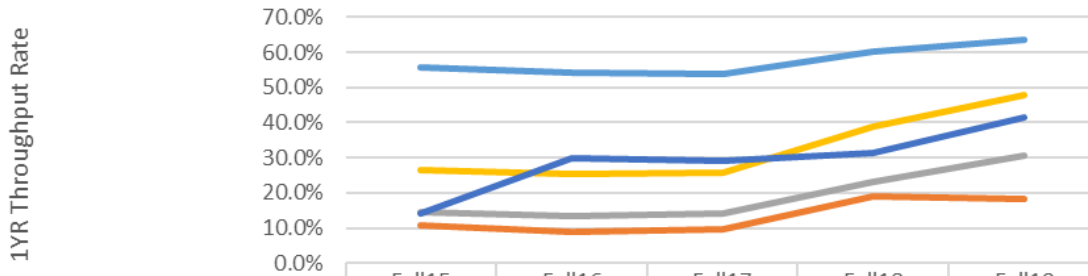


### Five-Year Trend of 1YR Math Throughput Rate by Gender



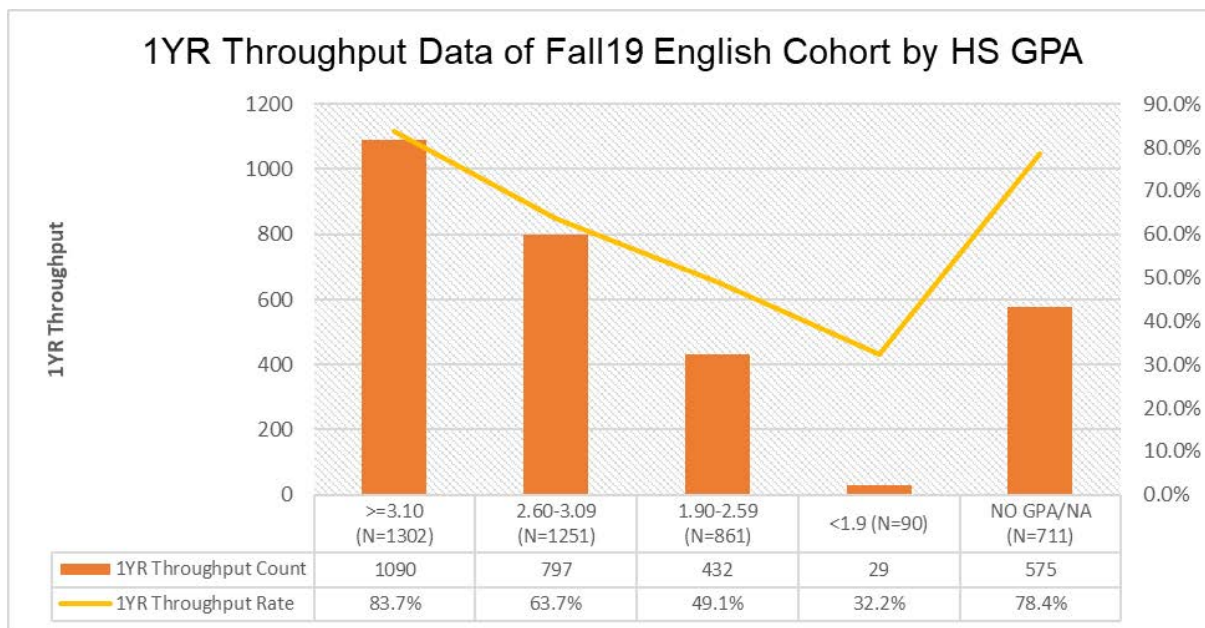
	Fall15 Cohort	Fall16 Cohort	Fall17 Cohort	Fall18 Cohort	Fall19 Cohort
Female	21.9%	20.4%	21.2%	30.6%	39.5%
Male	23.2%	23.8%	24.2%	34.2%	39.2%
Gender Unknown	19.8%	32.7%	26.5%	35.4%	31.9%

### Five-Year Trend of 1YR Math Throughput Rate by Ethnicity

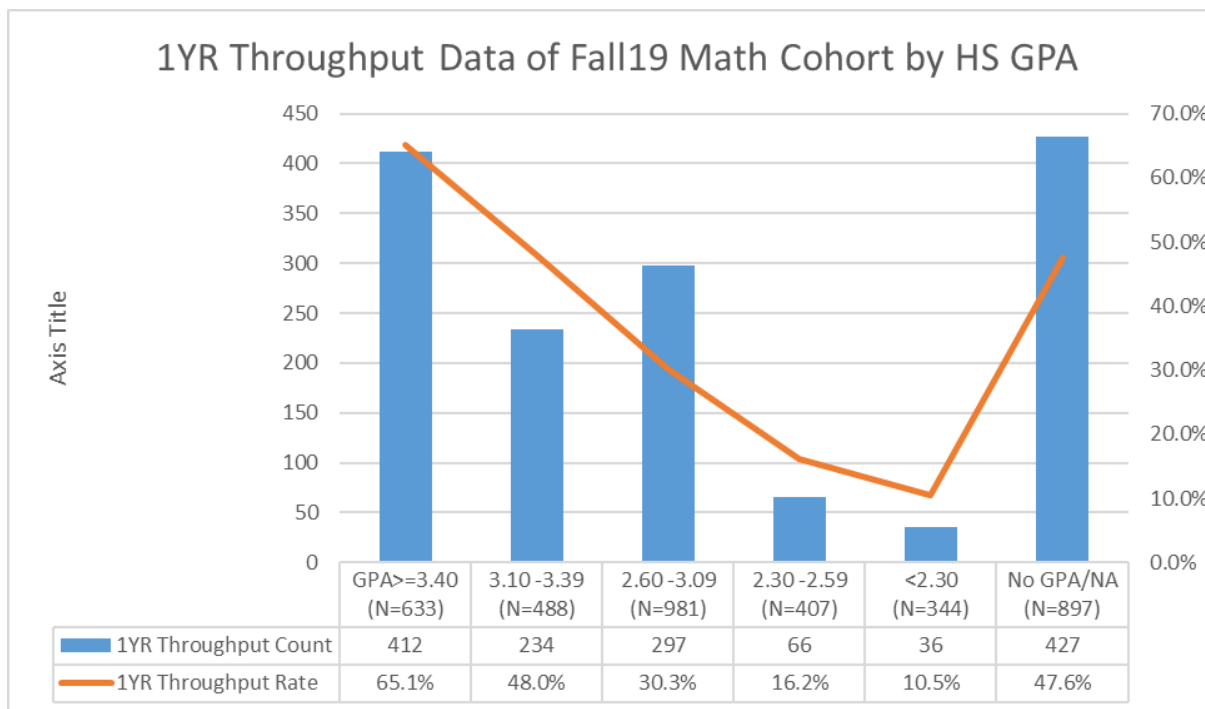


	Fall15 Cohort	Fall16 Cohort	Fall17 Cohort	Fall18 Cohort	Fall19 Cohort
Asian	55.5%	54.0%	53.7%	60.2%	63.6%
Black or African American	11.0%	9.1%	9.5%	18.9%	18.3%
Hispanic, Latino	14.6%	13.3%	14.1%	23.1%	30.7%
White	26.5%	25.3%	25.7%	39.0%	47.7%
Two or More Races	14.3%	29.7%	29.1%	31.5%	41.6%

## FALL2019 ENGLISH COHORT ONE-YEAR THROUGHPUT BY HS GPA



## FALL2019 MATH COHORT ONE-YEAR THROUGHPUT BY HS GPA





Fall 2019 Cohort Student Profiles	English Cohort (N=4255)		Math Cohort (N=3750)	
	1YR Throughput Completers (N=2923)	1YR Throughput Non-completers (N=1332)	1YR Throughput Completers (N=1472)	1YR Throughput Non-completers (N=2278)
Gender	53% Female	46% Female	No difference	No difference
Ethnicity	23% Asian, 2% Black, 63% Latinx, 8% White	9% Asian, 5% Black, 77% Latinx, 6% White	35% Asian, 1% Black, 50% Latinx, 11% White	13% Asian, 4% Black, 72% Latinx, 8% White
Age Group	84% 21 and under	84% 21 and under	78% 21 and under	76% 21 and under
Low income (eligible for need-based financial aid)	63%	73%	59%	71%
% Taking first ENGL/MATH course in first credit enrolled term	81% taken at first enrolled term	83% taken at first enrolled term	70% taken at first enrolled term	72% taken at first enrolled term
Average Mt.SAC cumulative GPA by end of cohort year	3.06	1.57	3.30	2.21
Average cumulative units earned by end of cohort year	23.29	8.67	34.49	20.37
Academic standing on probation by end of cohort year	3%	35%	1.9%	23.3%
Persist to next fall	78%	45%	75%	59%
Average High School GPA (self-reported in AQ)	3.02	2.66	3.21	2.76
% of first math course taken in MATH110	NA	NA	50% MATH110, 4% below Transfer, 46% Not MATH110	26% MATH110, 44% below Transfer, 30% Not MATH110

## APENDIX

### English Cohorts –Access and Throughput by First Course Level

ACCESS – Which Course Level Cohort started in First English Course										
English Fall Cohorts	ENGL1A		ENGL68		ENGL67		LERN81		Total	
	#	Row%	#	Row%	#	Row%	#	Row%	#	Row%
Fall2015	664	16.5%	1628	40.4%	1337	33.2%	402	10.0%	4031	100.0%
Fall2016	650	16.1%	1590	39.3%	1446	35.7%	363	9.0%	4049	100.0%
Fall2017	901	22.2%	1663	40.9%	1256	30.9%	246	6.1%	4066	100.0%
Fall2018	3606	96.2%	97	2.6%	14	0.4%	33	0.9%	3750	100.0%
Fall2019	4184	98.3%	51	1.2%	9	0.2%	11	0.3%	4255	100.0%
<b>Grand Total</b>	<b>10005</b>	<b>49.7%</b>	<b>5029</b>	<b>25.0%</b>	<b>4062</b>	<b>20.2%</b>	<b>1055</b>	<b>5.2%</b>	<b>20151</b>	<b>100.0%</b>

Throughput of English Fall Cohorts 1 <sup>st</sup> ENGL CRS Level by Fall Cohort Year	Completed Transfer English within 1YR		Did Not Completed Transfer English within 1YR		Total	
	#	Row %	#	Row %	#	Row %
<b>Fall 2015 Cohort Total</b>	<b>1352</b>	<b>33.5%</b>	<b>2679</b>	<b>66.5%</b>	<b>4031</b>	<b>100.0%</b>
ENGL1A	495	74.5%	169	25.5%	664	100.0%
ENGL68	629	38.6%	999	61.4%	1628	100.0%
ENGL67	218	16.3%	1119	83.7%	1337	100.0%
LERN81	10	2.5%	392	97.5%	402	100.0%
<b>Fall 2016 Cohort Total</b>	<b>1394</b>	<b>34.4%</b>	<b>2655</b>	<b>65.6%</b>	<b>4049</b>	<b>100.0%</b>
ENGL1A	475	73.1%	175	26.9%	650	100.0%
ENGL68	635	39.9%	955	60.1%	1590	100.0%
ENGL67	275	19.0%	1171	81.0%	1446	100.0%
LERN81	9	2.5%	354	97.5%	363	100.0%
<b>Fall 2017 Cohort Total</b>	<b>1606</b>	<b>39.5%</b>	<b>2460</b>	<b>60.5%</b>	<b>4066</b>	<b>100.0%</b>
ENGL1A	650	72.1%	251	27.9%	901	100.0%
ENGL68	733	44.1%	930	55.9%	1663	100.0%
ENGL67	213	17.0%	1043	83.0%	1256	100.0%
LERN81	10	4.1%	236	95.9%	246	100.0%
<b>Fall 2018 Cohort Total</b>	<b>2576</b>	<b>68.7%</b>	<b>1174</b>	<b>31.3%</b>	<b>3750</b>	<b>100.0%</b>
ENGL1A	2534	70.3%	1072	29.7%	3606	100.0%
ENGL68	40	41.2%	57	58.8%	97	100.0%
ENGL67	0	0.0%	14	100.0%	14	100.0%
LERN81	2	6.1%	31	93.9%	33	100.0%
<b>Fall 2019 Cohort Total</b>	<b>2923</b>	<b>68.7%</b>	<b>1332</b>	<b>31.3%</b>	<b>4255</b>	<b>100.0%</b>
ENGL1A	2913	69.6%	1271	30.4%	4190	100.0%
ENGL68	10	19.6%	41	80.4%	51	100.0%
ENGL67	0	0.0%	9	100.0%	9	100.0%
LERN81	0	0.0%	11	100.0%	11	100.0%
<b>Grand Total</b>	<b>9910</b>	<b>48.7%</b>	<b>10429</b>	<b>51.3%</b>	<b>20339</b>	<b>100.0%</b>

## English Cohorts –Throughput Disproportionate Impact Analysis on Fall 2015 and Fall 2019 Cohorts

ENGLISH COHORTS	GENDER^	Cohort Count	Outcome Count	1YR Throughput Completion Rate	80% Index	Proportion Index	Point Gap Index	MOE
Fall 2015	Female	1927	692	35.9%	100.0	1.06	4.27	-2.11
	Male	2026	641	31.6%	88.1	0.94	-4.27	-2.06
	Total	3953	1333	33.7%				
Fall 2019	Female	2170	1558	71.8%	100.0	1.04	6.17	-1.95
	Male	2028	1331	65.6%	91.4	0.95	-6.17	-2.02
	Total	4198	2889	68.8%				

^unknown gender not included

ENGLISH COHORTS	ETHNICITY^	Cohort Count	Outcome Count	1YR Throughput Completion Rate	80% Index	Proportion Index	Point Gap Index	MOE
Fall 2015	Asian	673	324	48.1%	100.0	1.44	17.53	-3.57
	Black or African American	148	37	25.0%	51.93	0.75	-8.87	-7.61
	Hispanic, Latino	2705	778	28.8%	59.74	0.86	-14.53	-1.78
	White	360	166	46.1%	95.8	1.37	13.80	-4.88
	Two or More Races	119	41	34.5%	71.57	1.03	0.94	-8.48
	Total	4005	1346	33.6%				
Fall 2019	Asian	801	683	85.3%	100.0	1.24	20.42	-3.21
	Black or African American	134	68	50.7%	59.51	0.74	-18.53	-7.85
	Hispanic, Latino	2864	1,841	64.3%	75.39	0.94	-13.51	-1.70
	White	312	239	76.6%	86.45	1.07	5.42	-5.15
	Two or More Races	127	92	72.4%	84.96	1.05	3.86	-8.07
	Total	4238	2,923	69.0%				

^ Ethnic group with N<30 not included

## Math Cohorts –Access and Throughput by First Course Level

ACCESS – Which Course Level Cohort started in First Math Course																
Math Fall Cohorts	TRANSF		MATH71		MATH70S		MATH51		MATH50		LERN49		LERN48		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Fall2015	1084	26%	799	19%	23	1%	375	9%	750	18%	864	21%	228	6%	4123	100%
Fall2016	1136	28%	776	19%	40	1%	279	7%	798	19%	881	21%	204	5%	4114	100%
Fall2017	1124	26%	909	21%	69	2%	357	8%	817	19%	848	20%	208	5%	4332	100%
Fall2018	1727	45%	757	20%	85	2%	663	17%	390	10%	149	4%	47	1%	3818	100%
Fall2019	2699	72%	653	17%	0	0%	170	5%	178	5%	23	1%	27	1%	3750	100%
<b>Grand Total</b>	<b>7770</b>	<b>39%</b>	<b>3894</b>	<b>19%</b>	<b>217</b>	<b>1%</b>	<b>1844</b>	<b>9%</b>	<b>2933</b>	<b>15%</b>	<b>2765</b>	<b>14%</b>	<b>714</b>	<b>4%</b>	<b>20137</b>	<b>100%</b>

Throughput of Math Fall Cohorts	Completed Transfer Math within 1YR		Did Not Completed Transfer Math within 1YR		Total	
1 <sup>st</sup> Math CRS Level by Fall Cohort Year	#	ROW%	#	ROW%	#	ROW%
<b>Fall 2015 Cohort Total</b>	<b>928</b>	<b>22.5%</b>	<b>3195</b>	<b>77.5%</b>	<b>4123</b>	<b>100.0%</b>
TRANSF	784	72.3%	300	27.7%	1084	100.0%
MATH71	103	12.9%	696	87.1%	799	100.0%
MATH70S	9	39.1%	14	60.9%	23	100.0%
MATH51	14	3.7%	361	96.3%	375	100.0%
MATH50	17	2.3%	733	97.7%	750	100.0%
LERN49	1	0.1%	863	99.9%	864	100.0%
LERN48	0	0.0%	228	100.0%	228	100.0%
<b>Fall 2016 Cohort Total</b>	<b>916</b>	<b>22.3%</b>	<b>3198</b>	<b>77.7%</b>	<b>4114</b>	<b>100.0%</b>
TRANSF	762	67.1%	374	32.9%	1136	100.0%
MATH71	114	14.7%	662	85.3%	776	100.0%
MATH70S	16	40.0%	24	60.0%	40	100.0%
MATH51	13	4.7%	266	95.3%	279	100.0%
MATH50	8	1.0%	790	99.0%	798	100.0%
LERN49	2	0.2%	879	99.8%	881	100.0%
LERN48	1	0.5%	203	99.5%	204	100.0%
<b>Fall 2017 Cohort Total</b>	<b>984</b>	<b>22.7%</b>	<b>3348</b>	<b>77.3%</b>	<b>4332</b>	<b>100.0%</b>
TRANSF	769	68.4%	355	31.6%	1124	100.0%
MATH71	144	15.8%	765	84.2%	909	100.0%
MATH70S	27	39.1%	42	60.9%	69	100.0%
MATH51	25	7.0%	332	93.0%	357	100.0%
MATH50	15	1.8%	802	98.2%	817	100.0%
LERN49	4	0.5%	844	99.5%	848	100.0%
LERN48	0	0.0%	208	100.0%	208	100.0%
<b>Fall 2018 Cohort Total</b>	<b>1240</b>	<b>32.5%</b>	<b>2578</b>	<b>67.5%</b>	<b>3818</b>	<b>100.0%</b>
TRANSF	1064	61.6%	663	38.4%	1727	100.0%

MATH71	128	16.9%	629	83.1%	757	100.0%
MATH70S	24	28.2%	61	71.8%	85	100.0%
MATH51	21	3.2%	642	96.8%	663	100.0%
MATH50	3	0.8%	387	99.2%	390	100.0%
LERN49	0	0.0%	149	100.0%	149	100.0%
LERN48	0	0.0%	47	100.0%	47	100.0%
<b>Fall 2019 Cohort Total</b>	<b>1472</b>	<b>39.3%</b>	<b>2278</b>	<b>60.7%</b>	<b>3750</b>	<b>100.0%</b>
TRANSF	1418	52.5%	1281	47.5%	2699	100.0%
MATH71	37	5.7%	616	94.3%	653	100.0%
MATH51	11	6.5%	159	93.5%	170	100.0%
MATH50	4	2.2%	174	97.8%	178	100.0%
LERN49	1	4.3%	22	95.7%	23	100.0%
LERN48	1	3.7%	26	96.3%	27	100.0%
	<b>5540</b>	<b>27.5%</b>	<b>14597</b>	<b>72.5%</b>	<b>20137</b>	<b>100.0%</b>

## Math Cohorts –Throughput Disproportionate Impact Analysis on Fall 2015 and Fall 2019 Cohorts

MATH COHORTS	GENDER^	Cohort Count	Outcome Count	1YR Throughput Completion Rate	80% Index	Proportion Index	Point Gap Index	MOE
Fall 2015	Female	2053	450	21.9%	94.4	0.97	-1.31	-1.81
	Male	1989	462	23.2%	100.0	1.03	1.31	-1.84
	Total	4042	912	22.6%				
Fall 2019	Female	1868	737	39.5%	100.0	1.00	0.22	-2.22
	Male	1835	720	39.2%	99.5	1.00	-0.22	-2.24
	Total	3703	1457	39.3%				

^unknown gender not included

MATH COHORTS	ETHNICITY^	Cohort Count	Outcome Count	1YR Throughput Completion Rate	80% Index	Proportion Index	Point Gap Index	MOE
Fall 2015	Asian	699	388	55.5%	100.0	2.47	39.74	-3.10
	Black or African American	155	17	11.0%	19.76	0.49	-11.99	-6.57
	Hispanic, Latino	2713	395	14.6%	26.23	0.65	-23.24	-1.57
	White	400	106	26.5%	47.74	1.18	4.42	-4.09
	Two or More Races	126	18	14.3%	25.74	0.63	-8.48	-7.29
	Total	4093	924	22.6%				
Fall 2019	Asian	810	515	63.6%	100.0	1.62	31.03	-3.36
	Black or African American	115	21	18.3%	28.27	0.47	-21.66	-8.92
	Hispanic, Latino	2374	730	30.7%	48.36	0.78	-23.17	-1.96

White	327	156	47.7%	75.03	1.22	9.26	-5.29
Two or More Races	113	47	41.6%	65.42	1.06	2.41	-9.00
Total	3739	1,469	39.3%				

^ Ethnic group with N<30 not included