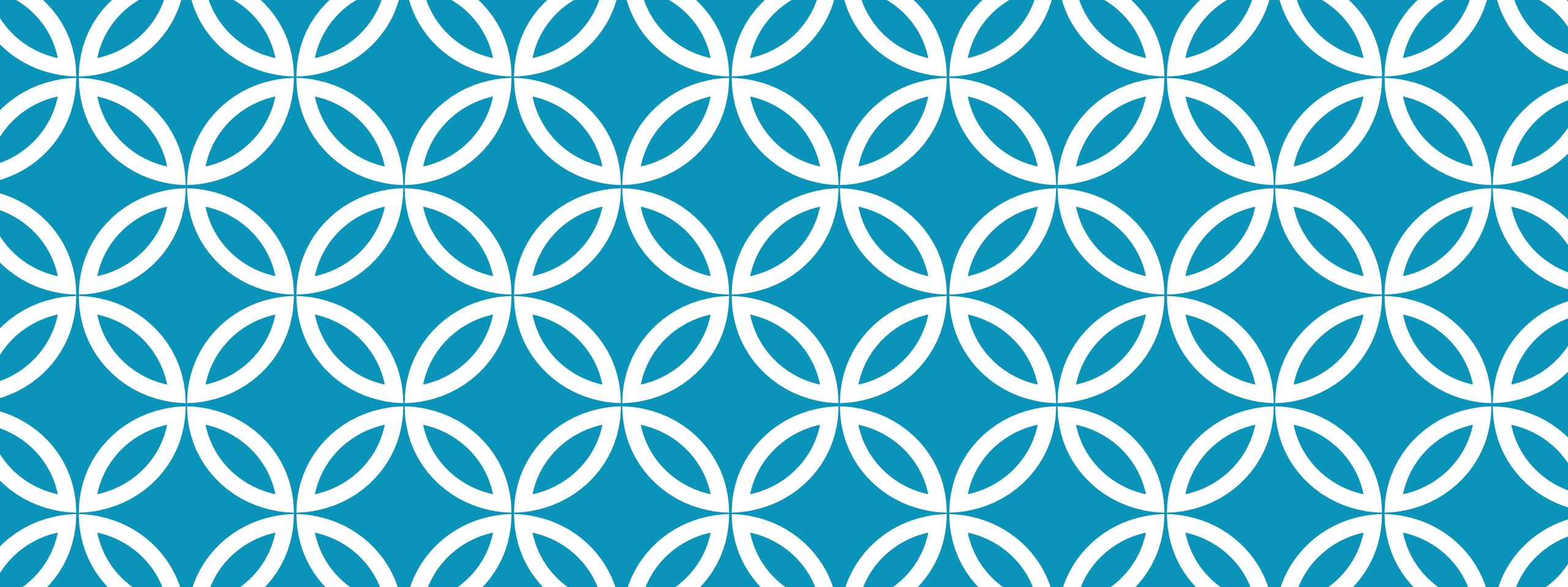


*Analysis of Admission ACT Scores from
2005-2011*

Amillia Woods
Data Mining 3210: Final
Assignment
December 16, 2013

OUTLINE:

- ❖ General Concept
- ❖ Data
- ❖ Methodology
- ❖ Results
- ❖ Summary



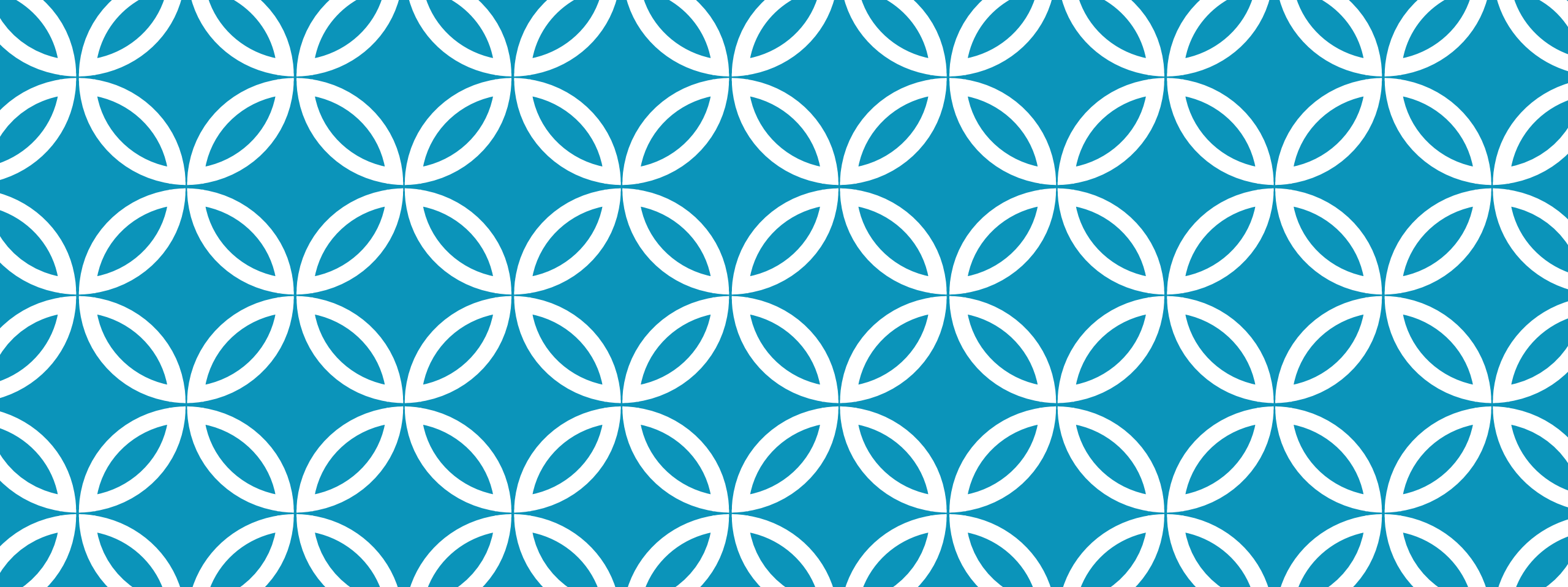
GENERAL CONCEPT



GENERAL CONCEPT

Use the Distribution of ACT-Tested Freshmen dataset to:

- ❖ Profile universities admission ACT scores
- ❖ Develop inferences on their admission policy
- ❖ Comparable trends amongst universities/colleges
- ❖ Patterns in ACT scores distributions
- ❖ Similar admissions programs
- ❖ Comparable ACT frequency
- ❖ ACT scores will increase over time
- ❖ ACT scores distributions from year to year
- ❖ Low and high score density



DATA



DATA

University	Freshmen Admission ACT Score	Public or Private
Harris-Stowe	18	Public
Lincoln	Open-enrollment institution for Missouri residents, applicants who are Missouri residents and have earned a high school diploma or GED diploma are eligible for admission to Lincoln University.	Public
Missouri Western	21	Public
Truman	24	Public
UMSL	17	Public
Lindenwood	20	Private
Fontbonne	20	Private
Maryville	20	Private
Southwest Baptist	20	Private
Webster	21	Private

DATA

- ❖ I retrieved a statistical summary of ACT-tested first time undergraduates enrolled in Baccalaureate and Higher Degree granting institutions by enhanced raw score intervals from the Missouri Department of Higher Education website.
- ❖ The dataset contains raw score intervals from private and public universities and colleges of fall: 2005, 2006, 2007, 2008, 2009, 2010, and 2011.

Let's take a look at the data!

DATA: 2005 DISTRIBUTION OF ACT-TESTED FRESHMEN

	36	32	27	23	18	16	0
UMSL	0.4%	12.7%	30.1%	42.7%	4.7%	0.8%	8.7%
HARRIS-STOWE	0.0%	0.0%	0.3%	5.5%	7.2%	29.4%	57.7%
WEBSTER	0.5%	12.8%	29.5%	33.7%	6.4%	1.2%	16.0%
LINDENWOOD	0.1%	7.3%	16.9%	40.0%	12.2%	0.0%	23.5%
FONTBONNE	0.0%	4.3%	21.9%	51.3%	13.4%	4.3%	4.8%
SOUTHWEST BAPTIST	0.8%	12.8%	27.9%	35.9%	8.6%	4.5%	9.5%
MARYVILLE	0.5%	12.8%	29.5%	33.7%	6.4%	1.2%	16.0%
TRUMAN	6.9%	38.3%	38.8%	12.2%	0.2%	0.0%	3.6%
LINCOLN	0.0%	0.3%	3.3%	20.5%	16.1%	45.3%	14.4%
MISSOURI WESTERN	0.0%	3.1%	13.3%	35.4%	19.0%	27.9%	1.3%

DATA: 2006 DISTRIBUTION OF ACT-TESTED FRESHMEN

	36	32	27	23	18	16	0
HARRIS-STOWE	0.0%	0.2%	1.0%	10.2%	16.5%	34.9%	37.3%
LINCOLN	0.0%	0.4%	6.5%	27.0%	22.4%	37.6%	6.0%
MISSOURI WESTERN	0.2%	3.5%	11.8%	38.3%	17.4%	22.2%	6.7%
TRUMAN	6.2%	40.4%	35.1%	13.1%	0.5%	0.0%	4.7%
UMSL	0.8%	9.7%	28.6%	42.9%	8.8%	1.9%	7.4%
FONTBONNE	0.0%	4.2%	17.4%	41.6%	16.8%	7.9%	12.1%
LINDENWOOD	0.2%	4.5%	15.0%	43.0%	10.7%	2.7%	23.9%
MARYVILLE	0.3%	14.7%	37.5%	39.1%	1.6%	0.0%	6.8%
SOUTHWEST BAPTIST	0.4%	14.2%	29.2%	35.9%	7.6%	6.5%	6.1%
WEBSTER	0.7%	16.1%	28.9%	35.2%	5.8%	1.4%	11.9%

DATA: 2007 DISTRIBUTION OF ACT-TESTED FRESHMEN

	36	32	27	23	18	16	0
HARRIS-STOWE	0.0%	0.2%	1.6%	8.7%	11.8%	42.8%	35.0%
LINCOLN	0.0%	0.7%	6.4%	24.6%	17.2%	41.1%	10.1%
MISSOURI WESTERN	0.1%	4.4%	13.2%	34.2%	18.8%	22.7%	6.6%
TRUMAN	7.1%	36.9%	35.9%	14.0%	0.4%	0.1%	5.6%
UMSL	0.6%	9.6%	29.9%	43.2%	7.8%	2.8%	6.0%
FONTBONNE	0.5%	5.8%	16.8%	42.4%	16.2%	9.4%	8.9%
LINDENWOOD	0.0%	6.7%	13.6%	43.7%	8.9%	0.7%	26.5%
MARYVILLE	1.3%	14.9%	37.6%	40.9%	1.7%	0.3%	3.3%
SOUTHWEST BAPTIST	0.2%	16.1%	23.4%	38.8%	10.7%	4.6%	6.1%
WEBSTER	1.4%	16.3%	29.5%	35.1%	4.6%	1.0%	12.0%

DATA: 2008 DISTRIBUTION OF ACT-TESTED EDUCUMEN

	36	32	27	23	18	16	0
HARRIS-STOWE	0.0%	0.2%	1.6%	8.7%	11.8%	42.8%	35.0%
LINCOLN	0.0%	0.9%	5.6%	24.7%	19.0%	41.7%	8.2%
MISSOURI WESTERN	0.0%	4.9%	16.2%	35.0%	17.3%	17.4%	9.2%
TRUMAN	9.1%	36.7%	33.7%	14.1%	0.2%	0.0%	6.2%
UMSL	1.5%	12.2%	26.7%	42.9%	7.3%	0.6%	8.8%
FONTBONNE	0.0%	4.2%	24.6%	43.5%	14.7%	3.1%	9.9%
LINDENWOOD	0.4%	7.1%	12.8%	43.8%	7.6%	0.5%	27.9%
MARYVILLE	1.1%	13.6%	33.7%	39.9%	0.6%	0.8%	10.2%
SOUTHWEST BAPTIST	1.6%	12.6%	24.2%	33.1%	10.9%	6.4%	11.2%
WEBSTER	1.0%	16.2%	26.9%	36.2%	6.2%	2.1%	11.4%

DATA: 2009 DISTRIBUTION OF ACT-TESTED FRESHMEN

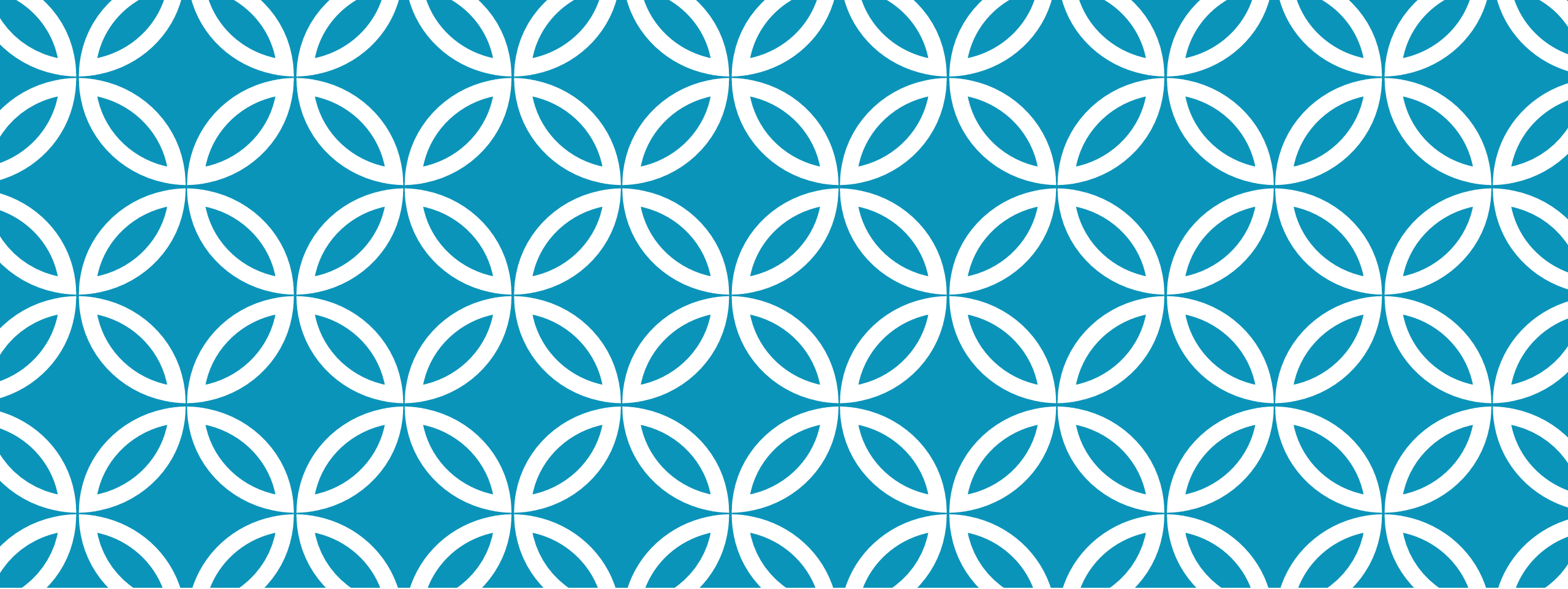
	36	32	27	23	18	16	0
HARRIS-STOWE	0.0%	0.0%	0.7%	8.3%	12.1%	37.6%	41.3%
LINCOLN	0.0%	0.7%	4.4%	21.9%	16.7%	41.1%	15.2%
MISSOURI WESTERN	0.1%	3.3%	13.2%	34.9%	17.0%	18.2%	13.3%
TRUMAN	7.6%	37.0%	36.2%	15.6%	0.5%	0.0%	3.1%
UMSL	0.8%	11.4%	25.5%	37.7%	12.0%	3.4%	9.1%
FONTBONNE	0.0%	7.7%	24.2%	45.1%	7.1%	2.7%	13.2%
LINDENWOOD	0.3%	4.5%	33.2%	34.6%	5.1%	0.4%	21.9%
MARYVILLE	0.5%	13.9%	36.4%	34.0%	3.2%	0.8%	11.2%
SOUTHWEST BAPTIST	1.1%	11.4%	27.2%	33.1%	7.6%	5.4%	14.2%
WEBSTER	0.8%	18.8%	27.9%	30.8%	7.7%	1.4%	12.6%

DATA: 2010 DISTRIBUTION OF ACT-TESTED FRESHMEN

	36	32	27	23	18	16	0
HARRIS-STOWE	0.0%	0.0%	1.5%	8.5%	12.5%	38.4%	39.1%
LINCOLN	0.2%	1.2%	4.8%	27.8%	17.3%	44.6%	4.1%
MISSOURI WESTERN	0.3%	3.7%	15.9%	41.9%	20.0%	7.5%	10.7%
TRUMAN	6.7%	36.6%	37.9%	14.3%	0.5%	0.0%	4.0%
UMSL	1.1%	10.4%	25.5%	29.3%	5.3%	0.6%	27.8%
FONTBONNE	0.0%	10.6%	17.9%	40.4%	12.6%	5.3%	13.2%
LINDENWOOD	0.3%	8.0%	16.3%	46.7%	5.0%	0.3%	23.5%
MARYVILLE	0.3%	21.2%	40.3%	24.2%	1.6%	0.3%	12.1%
SOUTHWEST BAPTIST	1.0%	8.7%	19.5%	38.0%	7.7%	7.3%	17.8%
WEBSTER	0.2%	12.3%	25.7%	27.3%	5.7%	2.0%	13.0%

DATA: 2011 DISTRIBUTION OF ACT-TESTED FRESHMEN

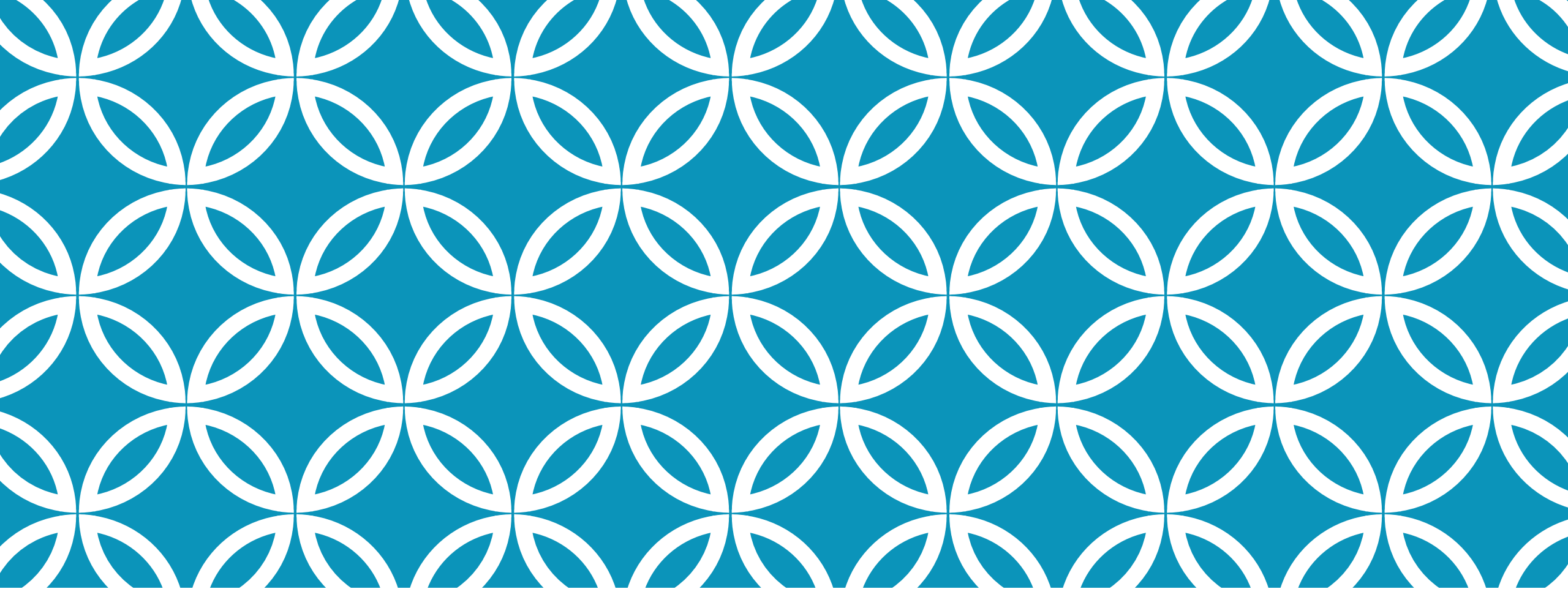
	36	32	27	23	18	16	0
HARRIS-STOWE	0.0%	0.0%	1.3%	11.1%	12.1%	28.3%	47.3%
LINCOLN	0.0%	0.8%	4.3%	18.9%	16.7%	50.7%	8.7%
MISSOURI WESTERN	0.1%	3.8%	14.4%	34.6%	18.0%	16.7%	12.5%
TRUMAN	5.4%	38.3%	38.2%	14.7%	0.2%	0.0%	3.2%
UMSL	0.8%	13.7%	28.8%	40.7%	4.8%	1.4%	9.9%
FONTBONNE	1.4%	2.8%	7.7%	14.8%	4.9%	0.7%	67.6%
LINDENWOOD	0.1%	4.8%	18.7%	39.3%	9.6%	4.6%	22.9%
MARYVILLE	0.0%	17.8%	44.1%	26.0%	2.0%	0.6%	9.6%
SOUTHWEST BAPTIST	0.8%	9.8%	26.1%	31.0%	9.9%	6.2%	16.3%
WEBSTER	1.0%	18.2%	30.8%	30.2%	4.5%	1.4%	9.9%



METHODOLOGY |

METHODOLOGY

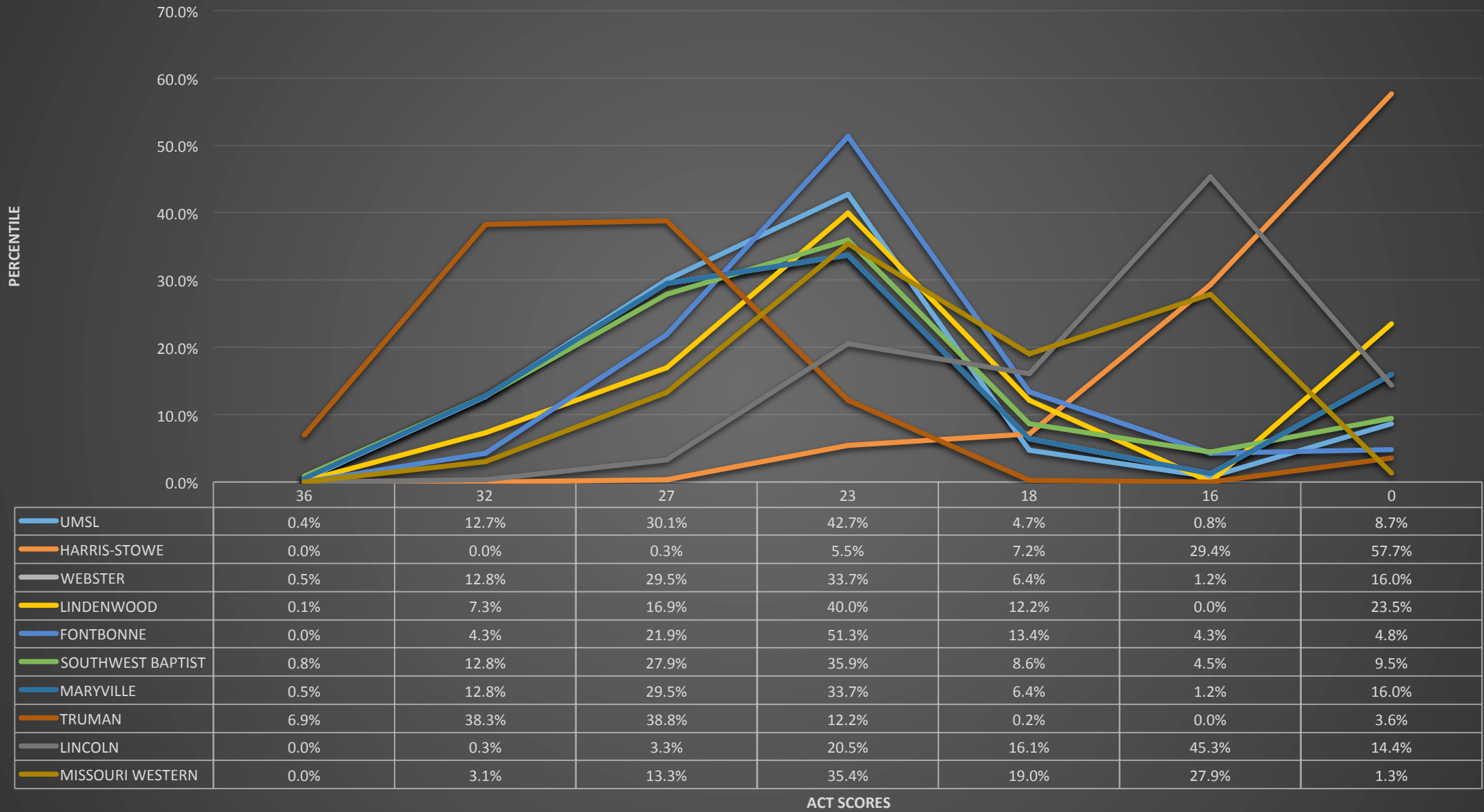
- ❖ I used Excel to graph and analyze the distribution of ACT-tested freshmen using [ACTscores.xls] dataset.
- ❖ Excel is spreadsheet program.
- ❖ This program use numerical values and data in the rows and (or) columns of a spreadsheet.



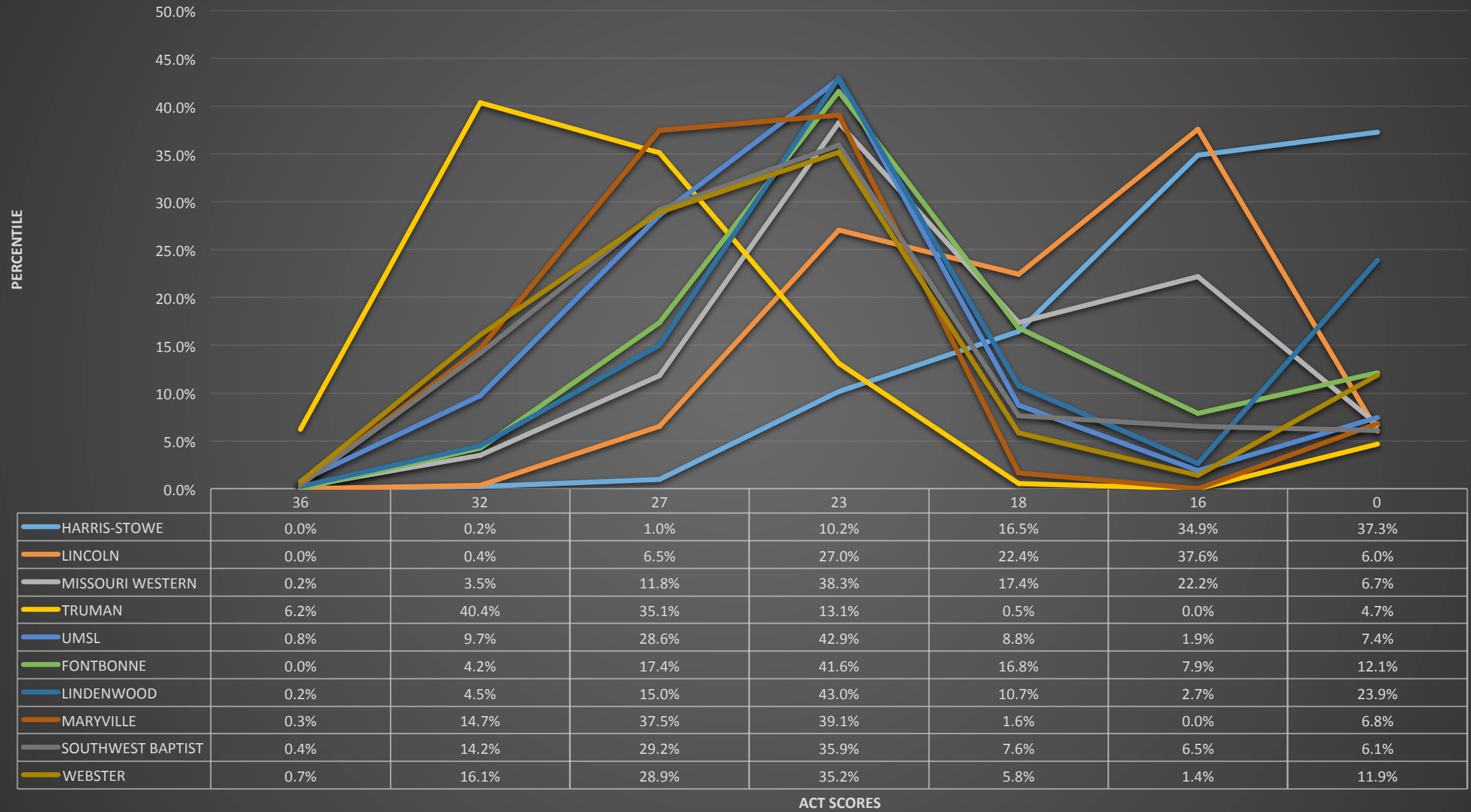
RESULTS



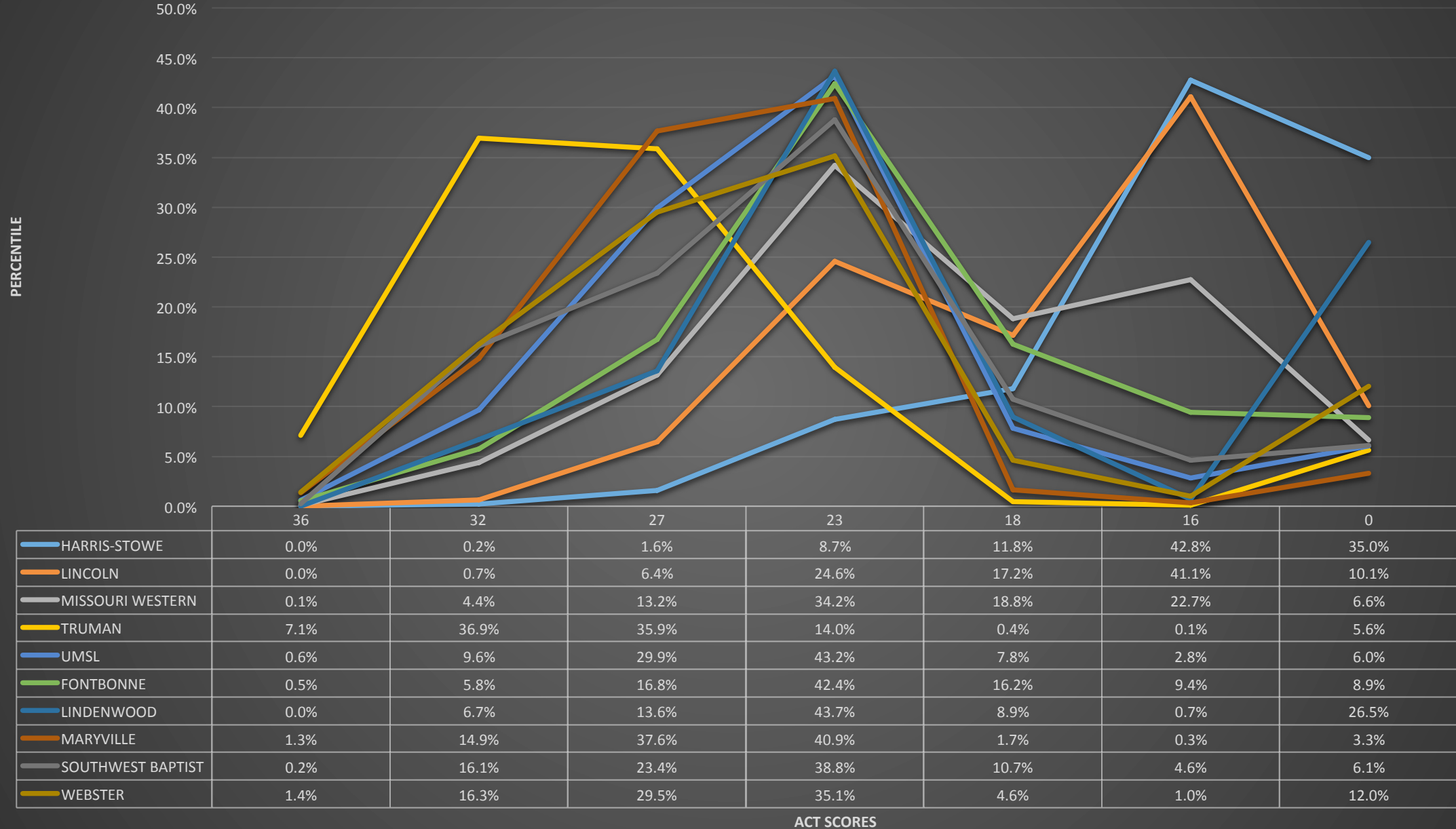
2005 DISTRIBUTION OF ACT-TESTED FRESHMEN



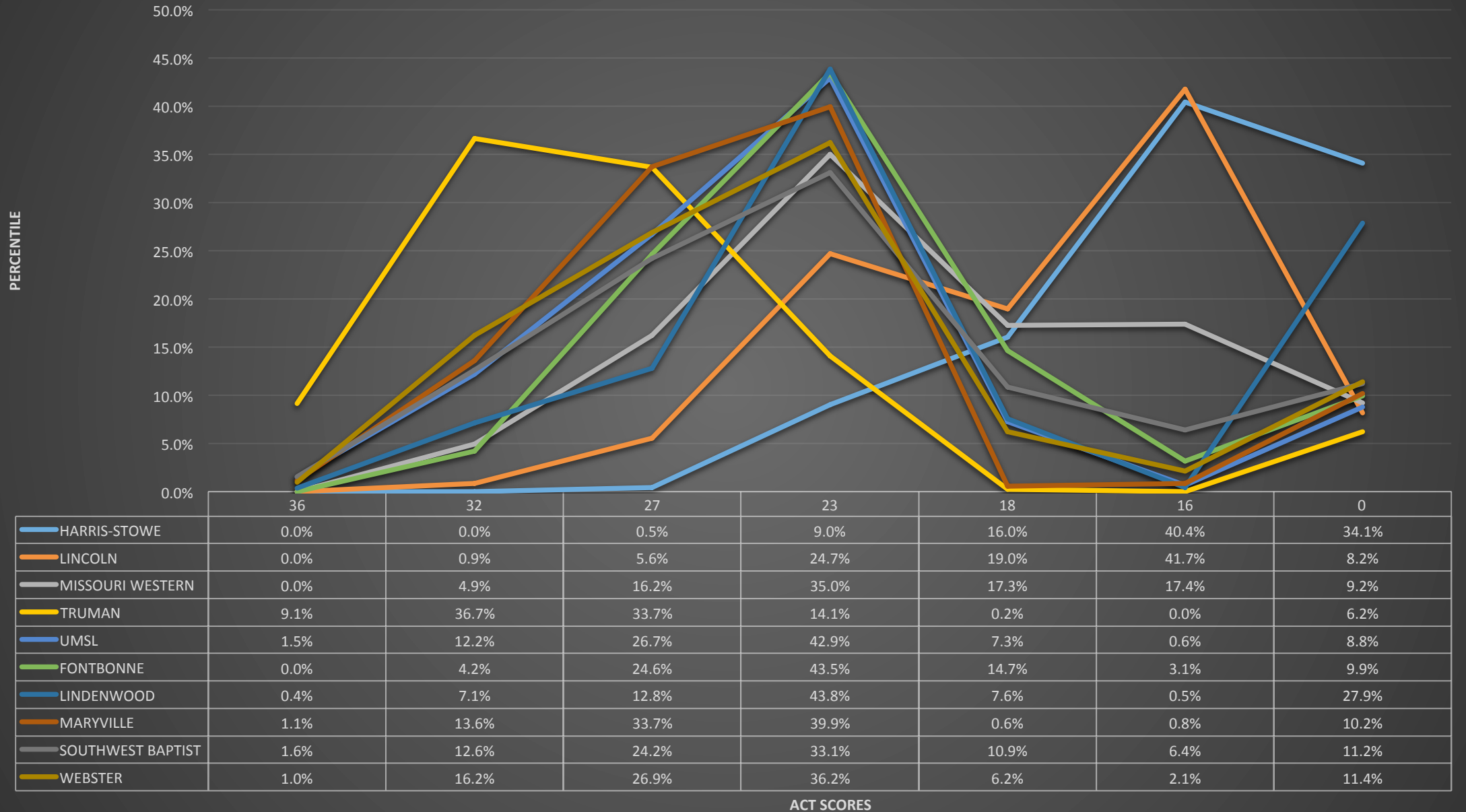
2006 DISTRIBUTION OF ACT-TESTED FRESHMEN



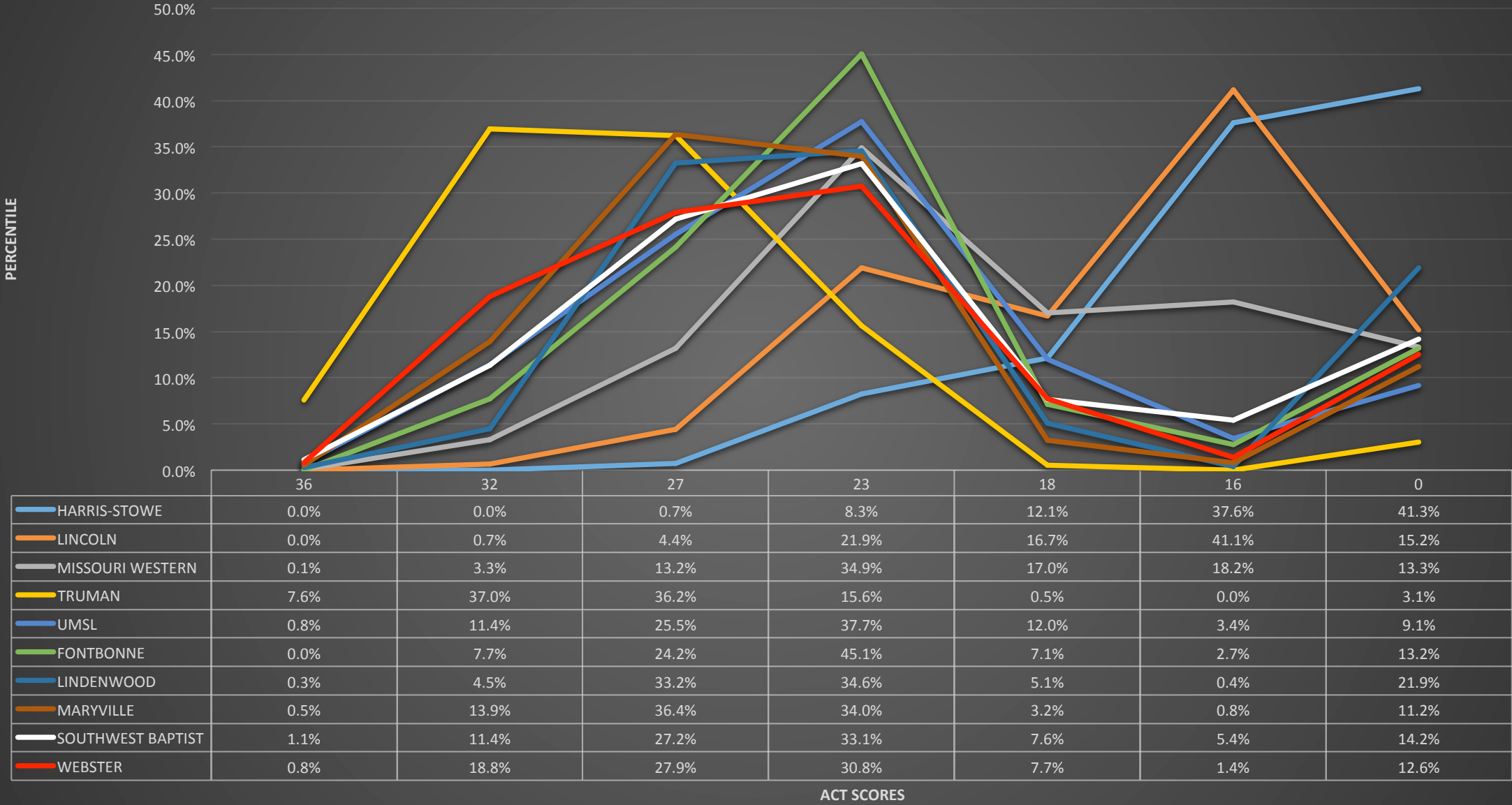
2007 DISTRIBUTION OF ACT-TEST FRESHMEN



2008 DISTRIBUTION OF ACT-TESTED FRESHMEN

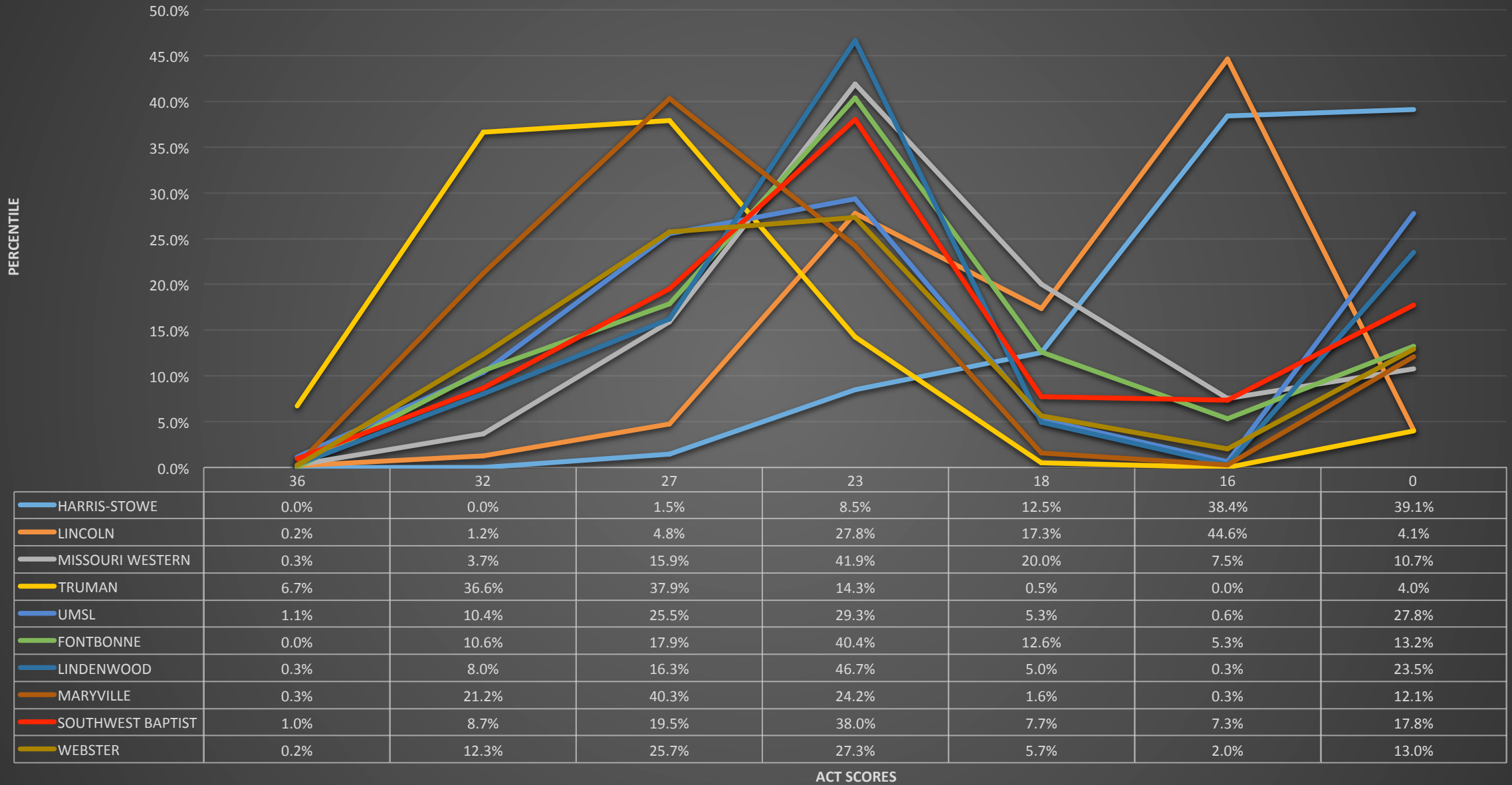


2009 DISTRIBUTION ACT-TESTED FRESHMEN

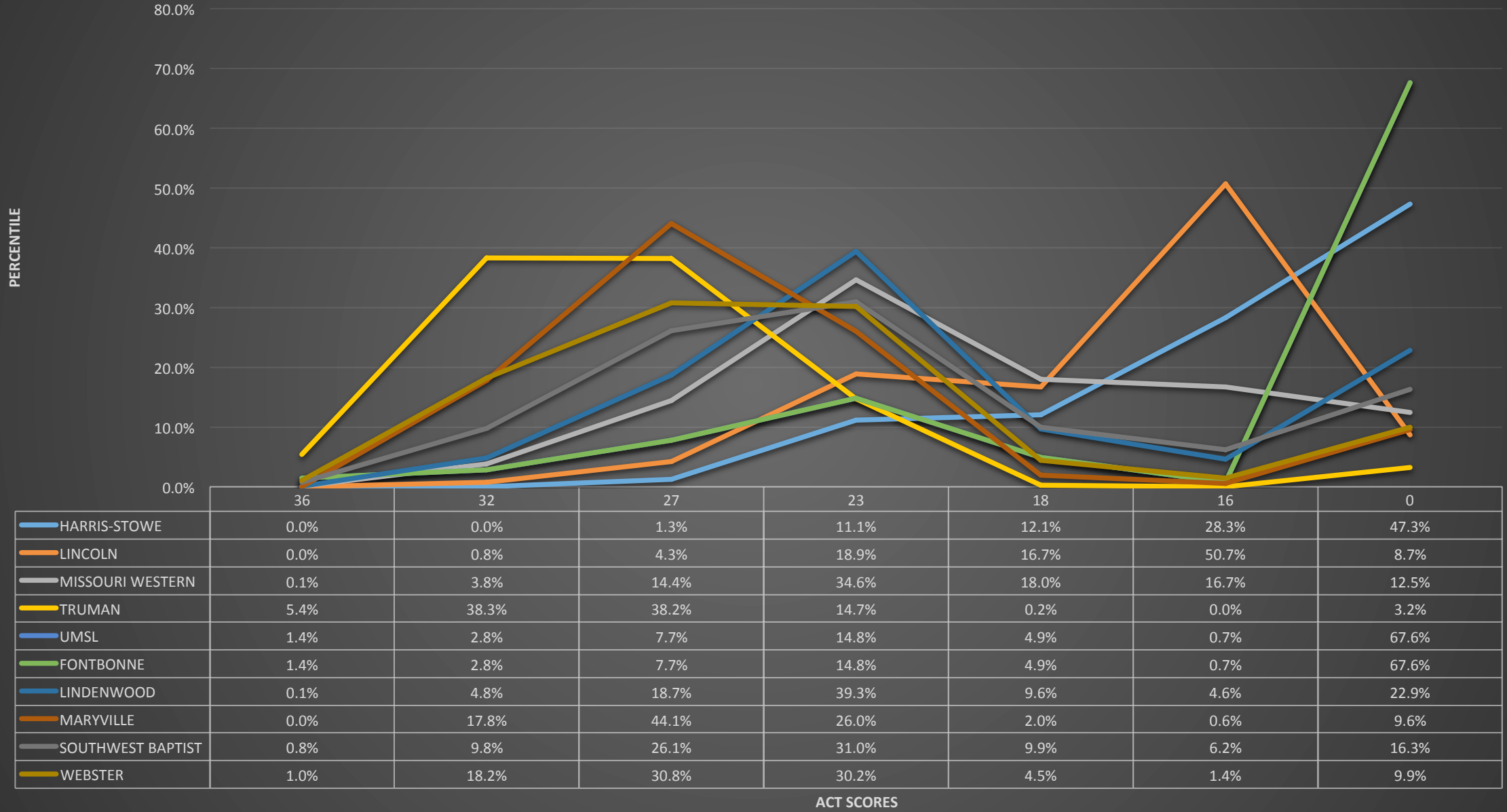


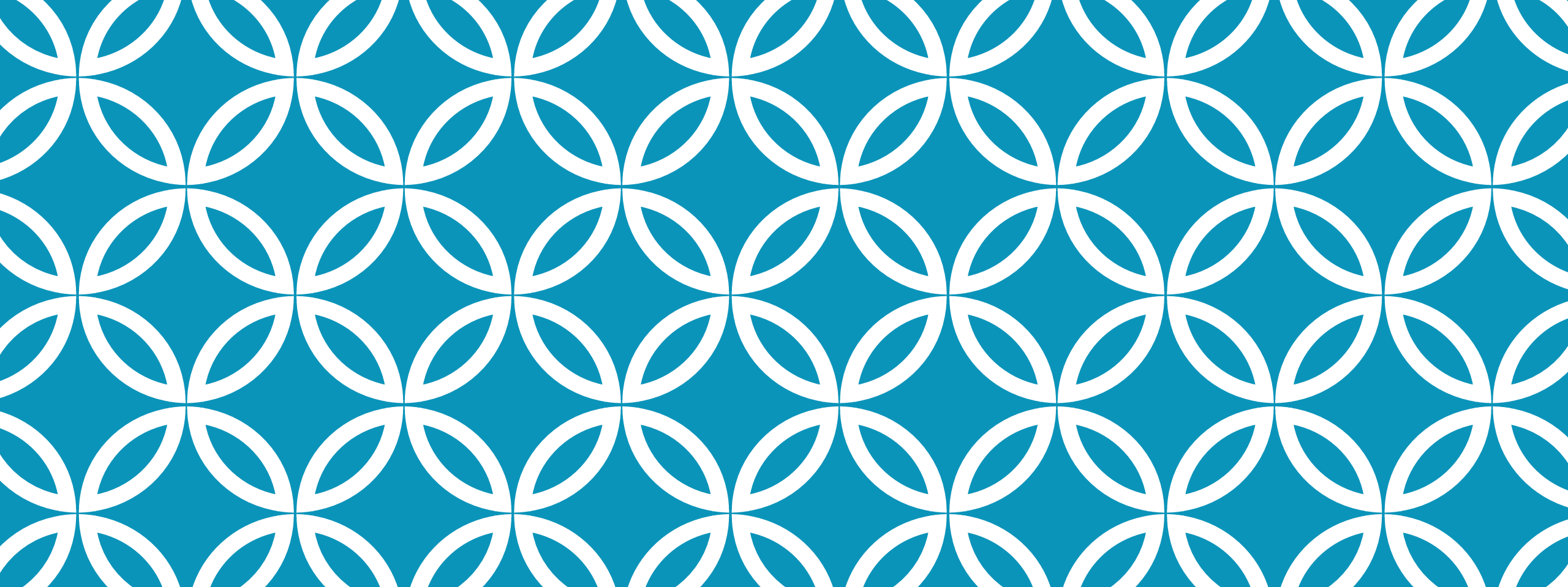
ACT SCORES

2010 DISTRIBUTION OF ACT-TESTED FRESHMEN



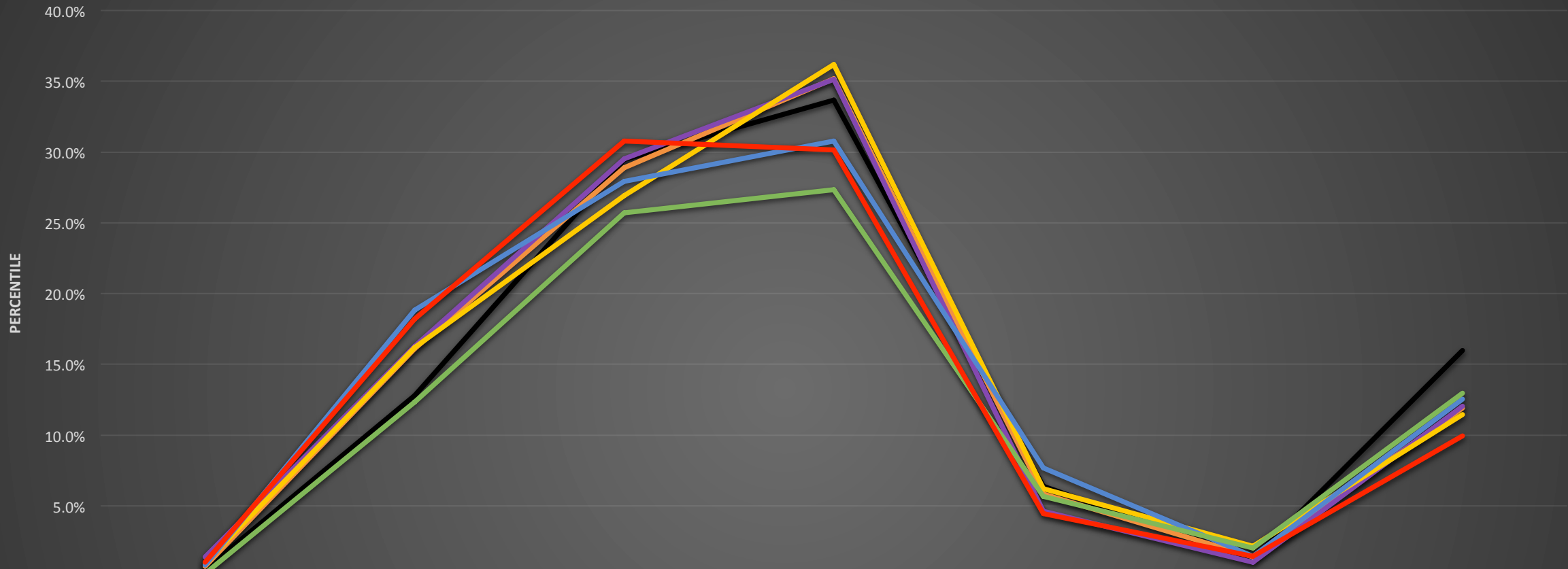
2011 DISTRIBUTION OF ACT-TESTED FRESHMEN





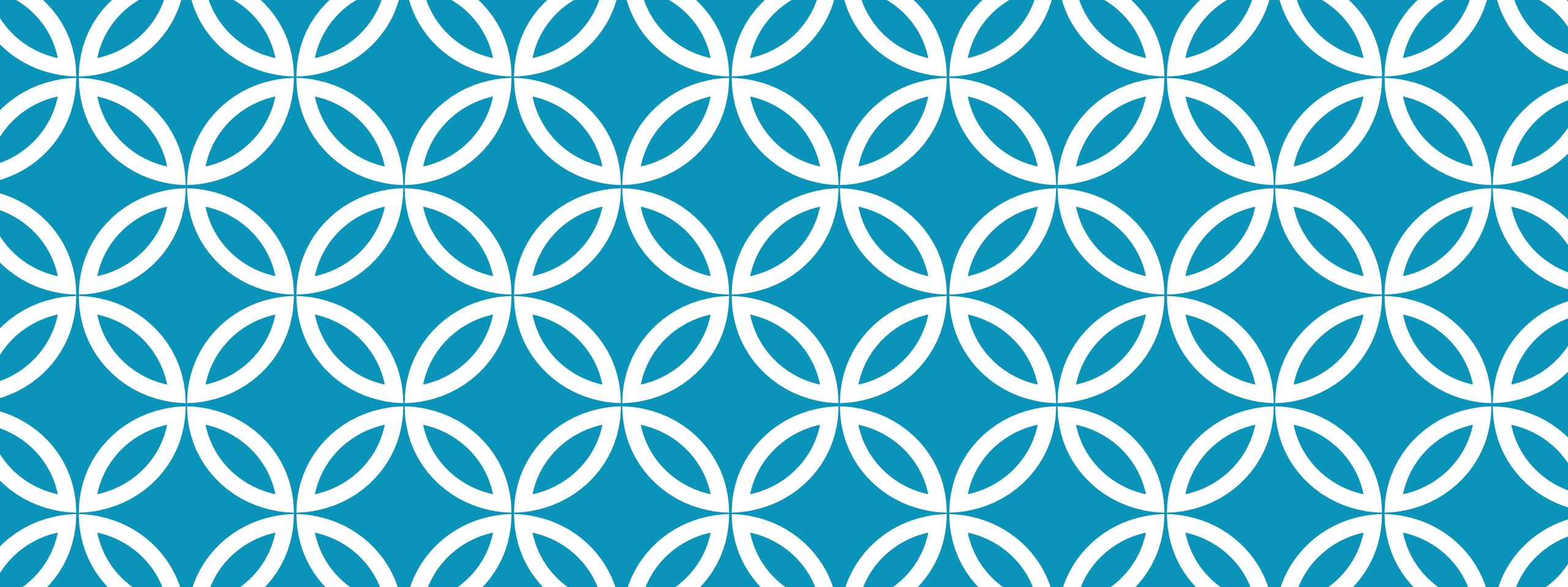
**WEBSTER'S
DISTRIBUTION
ACT-TESTED FRESHMEN |
FROM 2005-2011**

Webster's Distribution of Act-Tested Freshmen



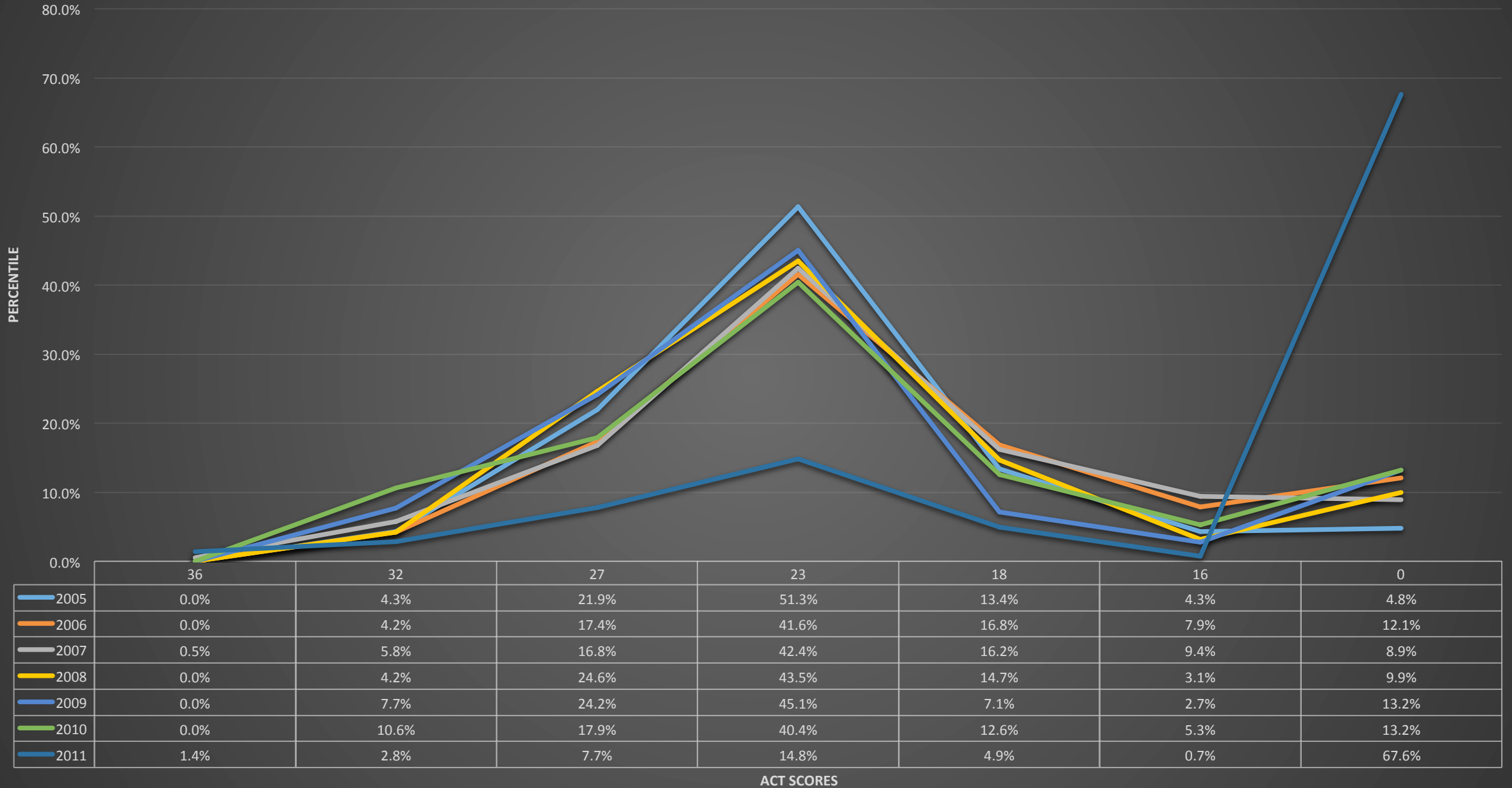
	36	32	27	23	18	16	0
2005	0.5%	12.8%	29.5%	33.7%	6.4%	1.2%	16.0%
2006	0.7%	16.1%	28.9%	35.2%	5.8%	1.4%	11.9%
2007	1.4%	16.3%	29.5%	35.1%	4.6%	1.0%	12.0%
2008	1.0%	16.2%	26.9%	36.2%	6.2%	2.1%	11.4%
2009	0.8%	18.8%	27.9%	30.8%	7.7%	1.4%	12.6%
2010	0.2%	12.3%	25.7%	27.3%	5.7%	2.0%	13.0%
2011	1.0%	18.2%	30.8%	30.2%	4.5%	1.4%	9.9%

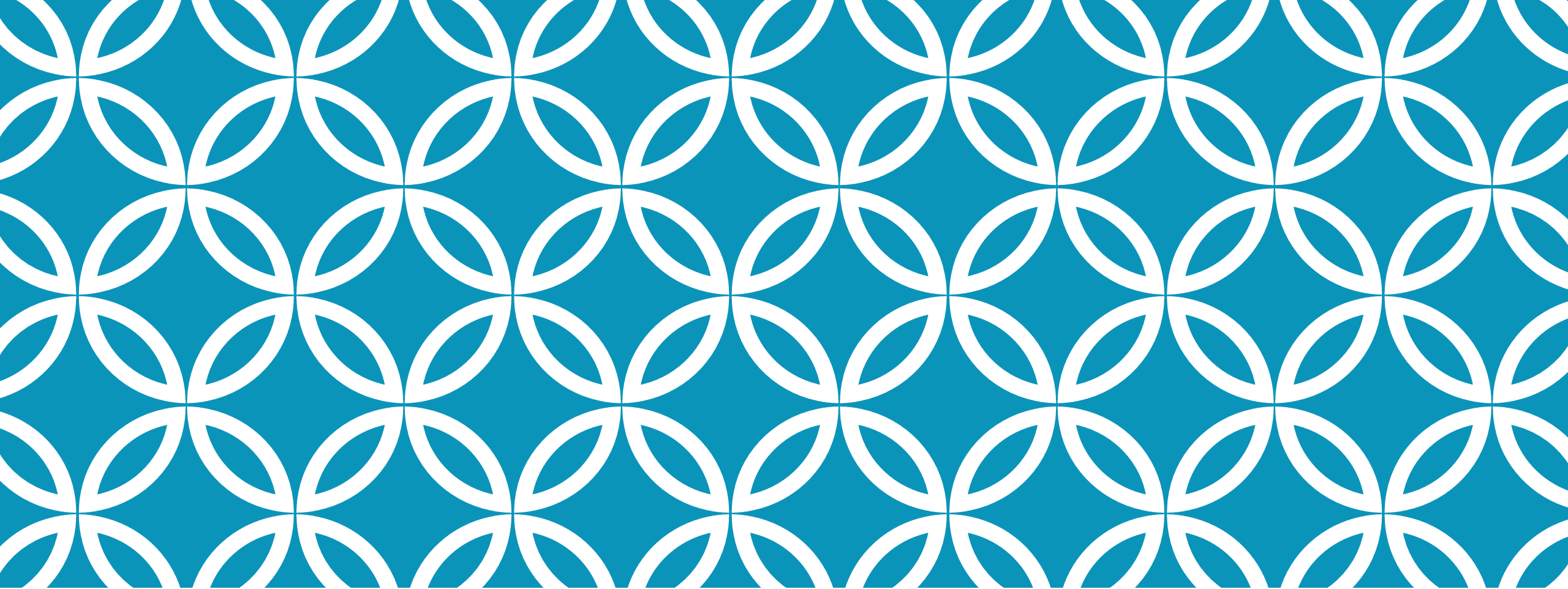
ACT SCORES



**FONTBONNE'S
DISTRIBUTION
ACT-TESTED FRESHMEN |
FROM 2005-2011**

Fontbonne's Distribution of ACT-Tested Freshmen



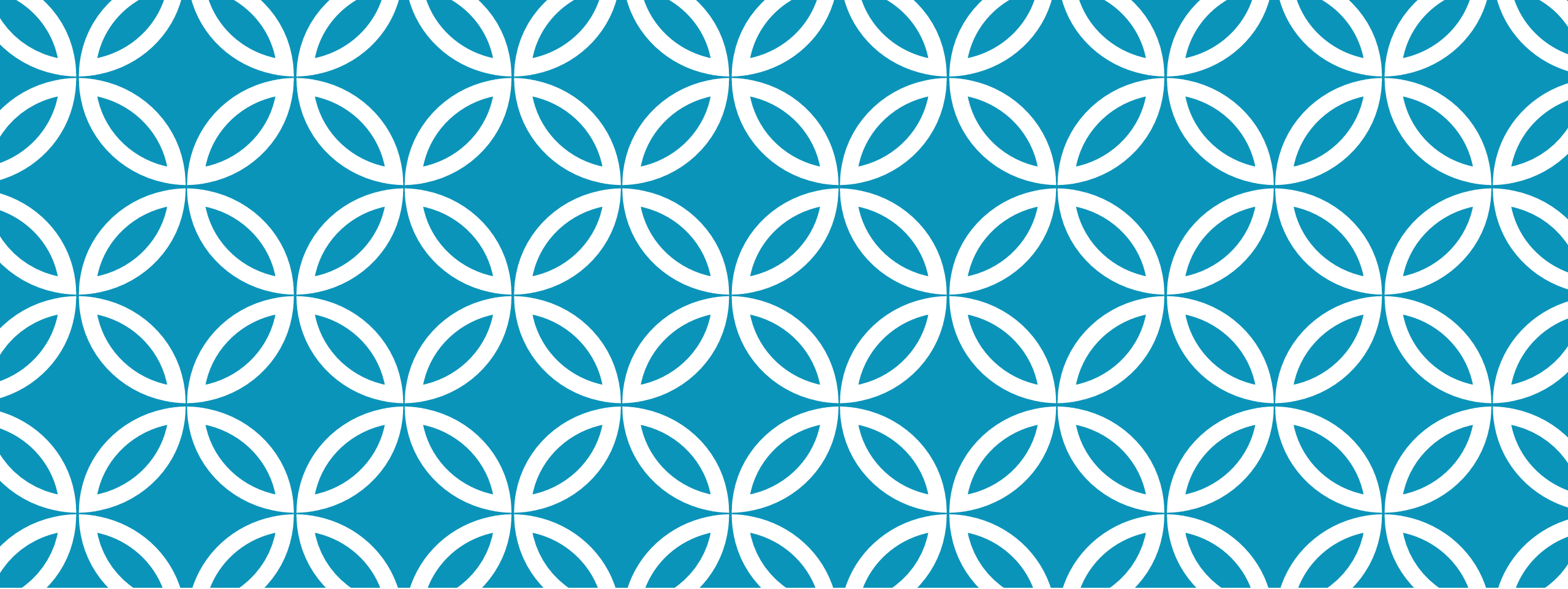


SUMMARY



SUMMARY

- ❖ General Concept
- ❖ Data
- ❖ Methodology
- ❖ Results



QUESTIONS? |

REFERENCES

"Missouri Department of Higher Education - Building Missouri's Future...by Degrees." *MDHE Stat Sum*. N.p., n.d. Web. 16 Dec. 2013. Retrieved from:

<http://www.dhe.mo.gov/data/statsum/>