



CONGRATULATIONS TO



THE WHITEHAVEN HIGH SCHOOL CLASS OF 2017

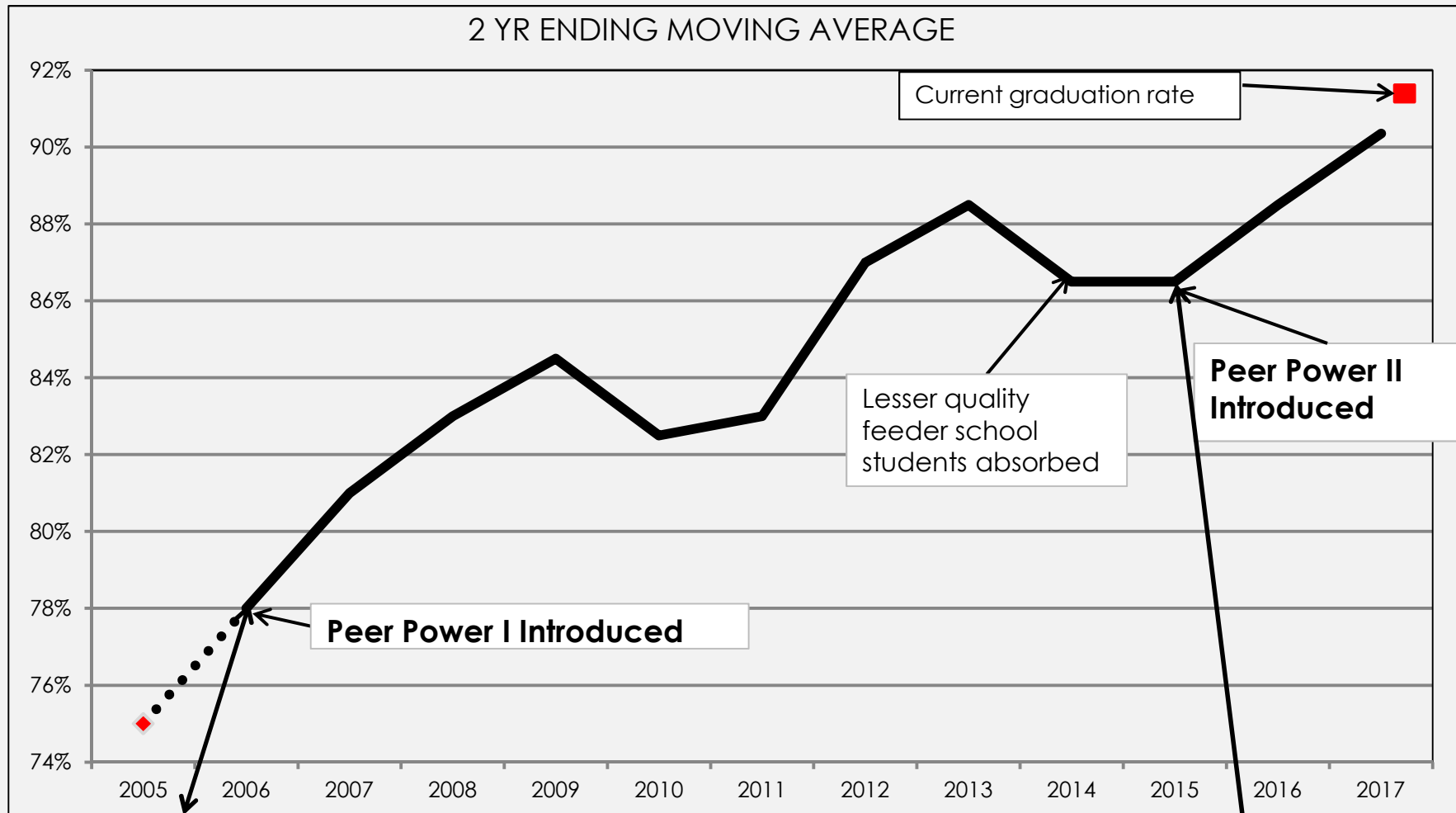
- Highest graduation rate of any large public high school in Memphis (91.7%)*
- 80% college - or post secondary training-bound
- Total scholarships earned: \$130,000,000**
- Quite an accomplishment within a school which had been targeted with sanctions for failing math scores as recently as 2006

*Excludes Intl Baccalaureate School Germantown High due to highly restricted admissions dependent on superior academic performance and 9 small Charter Schools (average 272 students)

**We acknowledge the excellent scholarship programs offered by the state of Tennessee, with special thanks to Congressman Steve Cohen and Governor Bill Haslam



WHITEHAVEN HIGH SCHOOL GRADUATION RATE



Peer Power I (introduced in 2006, voluntary afternoon programs tutored by outstanding high school students using team tutoring)

Peer Power II (began in 2015, exceptional University of Memphis students tutoring 1500 hours a week in the class room)



TESTIMONIAL

* **“In 2006, Peer Power came to Whitehaven. At that time our Achilles heel was Algebra I: we had a 68% passing rate. The ability for a school to perform on those standardized tests dictated the status of that particular school.... Because of our decrease in our performance on the Algebra I gateway exam, we had slipped to targeted according the state expectations. So of course they had my attention.... In exactly one year from 2006 to 2007, after implementation of Peer Power, we went from 68% passing rate to 84% passing rate -- in one year. It was almost too good to be true.” But the scores were accurate and even improved in 2007 to 2008.**

- * **Vincent Hunter, Ed .D,**
- * **Executive Principal**
- * **Whitehaven High School**



SHELBY COUNTY LARGE PUBLIC HIGH SCHOOL GRADUATION RATES

WHITEHAVEN *	90%	1970 STUDENTS
Cordova High	87%	2400
Mitchell High	87%	1074
Central	87%	1870
Overton	86%	1486
White Station	86%	2263
Southwind, Craigmont & Bolton	3 @ 80-85%	Average size: 1255
Ridgeway, Trezevant, East, Oakhaven & Melrose	5 @ 75-80%	Average Size: 663
Hamilton, Kirby & Douglas	3 @ 70-75%	Average Size: 561
Raleigh Egypt, Sheffield, Kingsbury, Westwood, Manassas & Wooddale	6 @ < 70%	Average Size: 736

* 2017 graduation rate

Source: Shelby County School System



“THE WHITEHAVEN EFFECT”

Since its introduction at Whitehaven High School in 2006, Peer Power has grown to 1500 man hours per week of paid in-class collegiate tutoring for 1950 students. The resulting improvement at both ends of the academic spectrum means that 2017 graduates should have much higher incomes and that far fewer of them will end up in trouble with the law.

	IN COLLEGE*	DROPPED OUT
2006	40%	25%
2017	80%	10%
CHANGE	+100%	-60%

*Or other post-secondary education

We are hopeful that at least 30% of our class of 2017 will earn bachelor's degrees. This would compare to 10% in 2006 (+300%).



THERE ARE MASSIVE RETURNS FROM A BETTER HIGH SCHOOL EDUCATION

IMPROVEMENT IN WEEKLY EARNINGS

Median Drop Out → Median High School Grad = +38%

Median HS Grad → Top Quartile HS Grad = +43%

Median Drop Out → Top Quartile HS Grad = **+97%**
Nearly Double

Median HS Grad → Further College Education +++ = **Please See Next Page**

Source: Bureau of Labor Statistics



OF COURSE FURTHER EDUCATION ADDS EVEN MORE INCOME

Educational Equivalent	Occupation	Avg. hourly wage In Memphis
Less than High School	Helper – Production Worker	\$11.06
	Personal Care Service	
High School Only	Medical Secretary or Assistant	\$15.36
	Transportation and Material Moving	
Some College	Office Support	\$17.64
	Protective Services	
Associate's Degree	Medical Laboratory Technician	\$19.51
Bachelor's Degree	Sales Representative	\$26.25
	Supervisor -Laborers and Material Movers	
	Human Resource specialist	

Source: US Bureau of Labor Statistics

[A BETTER WAY TO LEARN](#)



THE IMPROVED EDUCATION OF THE CLASS OF 2017 OFFERS ITS MEMBERS THE OPPORTUNITY FOR A HUGE INCREASE IN INCOME COMPARED TO THEIR COUNTERPARTS FROM A DECADE BEFORE

* PER STUDENT

* BEFORE PEER POWER

* AFTER PEER POWER

- * Hourly Wage = \$15.50
- * Monthly Earnings = \$2,480
- * Yearly Earnings = \$29,760

- * Hourly Wage = \$21.70
- * Monthly Earnings = \$3,472
- * Yearly Earnings = \$41,664

* **Annual Income Increase = \$11,904 (Up 40%)**

* **Income Increase Over Decade = \$119,040**

* **Peer Power Total Cost Per Student = \$2,032**

*

Combining Whitehaven academic data with official data reflecting the Memphis labor market suggests a literally huge payback on an investment in Peer Power for the Memphis community at large.



TESTIMONIAL

- * Peer Power is instrumental in coaching and guiding youths to become productive members of society. Without Peer Power many could have ended on the streets engaged in anti-social and/or criminal activities. **The impact of Peer Power should not be judged by an increase in the average ACT score alone but by what society is saving economically and morally and otherwise by not having dysfunctional citizens.** The count of students helped is not only the number of youths that have been directly saved but also includes the additional youths who have been helped by the directly saved ones. Peer Power unleashes a virtuous upward cycle - the impact increasing geometrically.
- * Rajiv Grover, Ph.D.
Dean, Fogelman College of Business & Economics
- * Chair of Excellence, Sales and Marketing
- * In an attempt to curb student dropout and boost graduation rates, Dr. Grover chose to partner with Peer Power (2014) to have the best students tutor in the most difficult flunk-out courses of Fogelman College. Peer Power tutors Operations Management, Accounting, Finance, Applied Programming, Taxes and Logistics, all key to growing a dynamic and competitive workforce. Four years later Dr. Grover says, "It is working every day," by developing better students, improving graduation rates and sending prepared students to fuel our economy. Dr. Grover and his faculty have been of great help to us in recruiting U of M students out of Fogelman College to our high school and college operations.



THE ONE-ROOM SCHOOLHOUSE MODEL

“You boys just don’t realize that a one-room schoolhouse is a wonderful system where the better, older kids help the one teacher to reach the other students of all ages, each according to his or her own individual abilities and needs.”¹

1. My mother, Mrs. Charles A. McVean, who had taught in a one-room schoolhouse as a young lady, speaking to my brother, John and me outside the McVean school, which was a one-room schoolhouse built by my great-grandfather near Tipton, MO. My mother went on to become the Founding Director of Christ Methodist Day School in Memphis, TN.

--Charles McVean

There were once around 200,000 of these iconic institutions in the US, most successful, some legendary.²

2.“The One-Room Schoolhouse: A Tribute to the National Icon” Paul Rocheleau, Universe 2003



WE ADOPTED THE “ONE-ROOM SCHOOLHOUSE MODEL” AND THEN APPLIED IT AGAIN AND AGAIN.....

- 12 years of hard work beginning at East High School in 2004
- Hired, trained and paid 1500 young people to help and they did!
- To date, \$13 million invested helping 15,000 students
- An additional \$2 million currently committed for 2017/2018. (Underfunded by \$1.5 million)



WHAT 1,000,000 MAN HOURS OF PAID PEER TUTORING TAUGHT US

- In many inner city classrooms, little progress will be made until there is a) discipline, b) motivation and c) the ability to teach each child at or near his or her own level.
- We believe that the best, and sometimes only, possible way to accomplish these goals is by collapsing the student/teacher ratio through our tutors, whom leverage the “teaching power” of our better teachers.
- It just takes people to discipline and people to motivate and people to provide individual instruction.

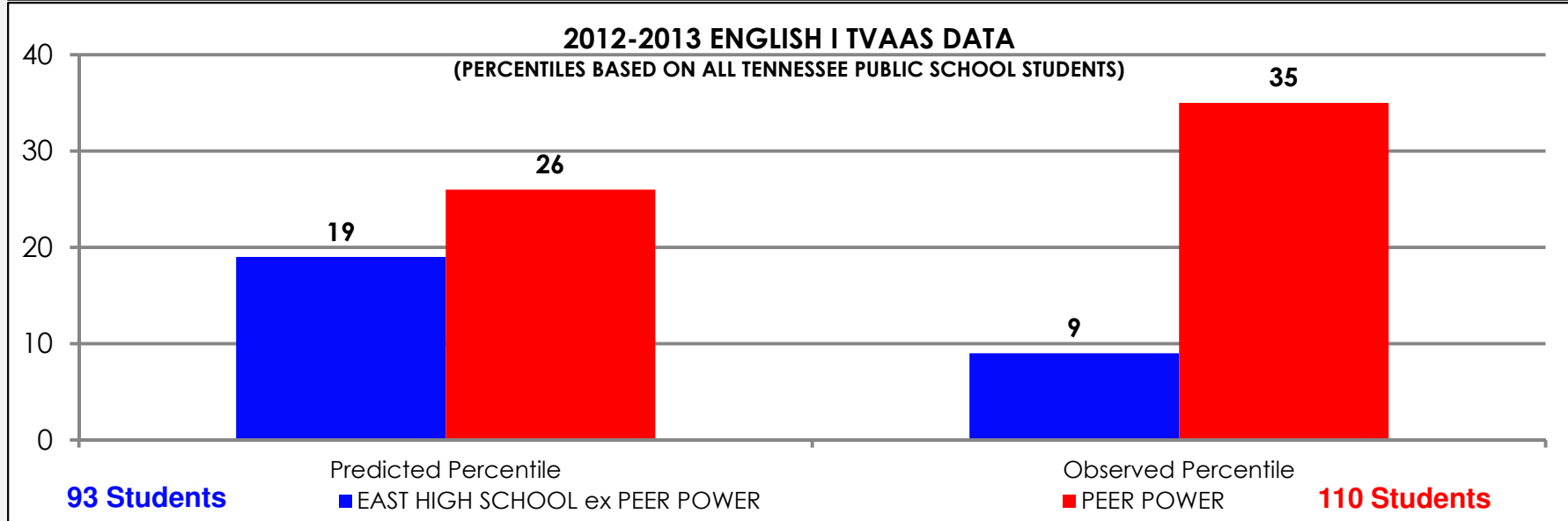
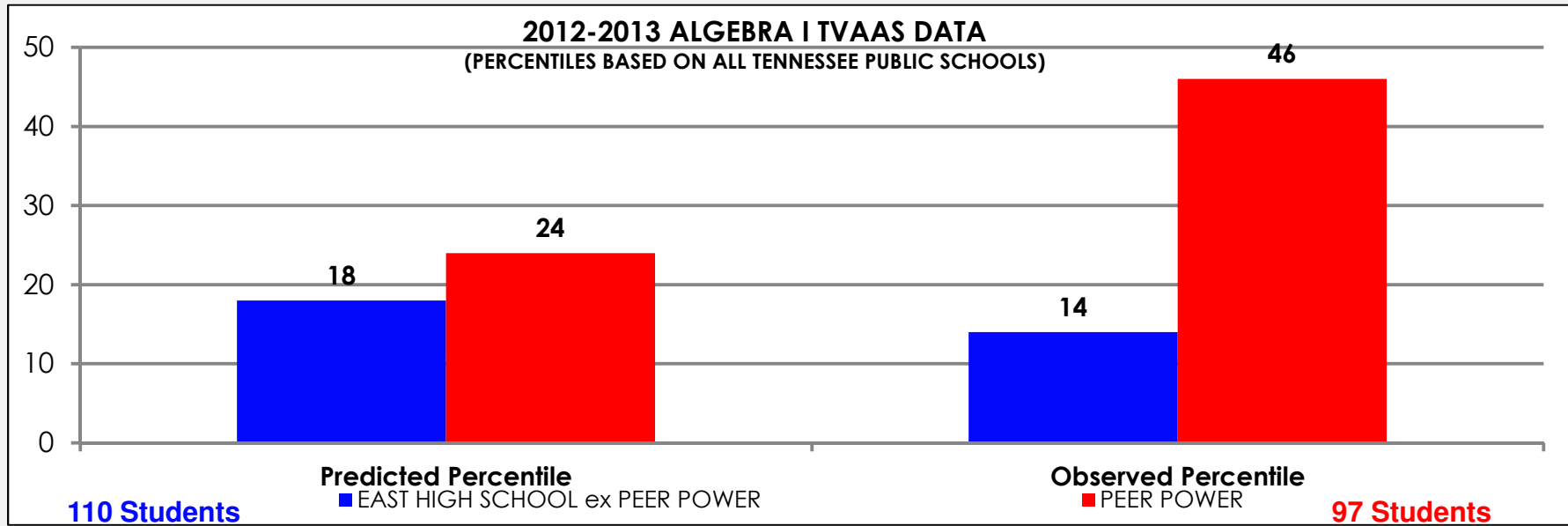


IN THE BEGINNING

- Prior to 2015, Peer Power operated predominantly on an after school basis with “scholars” being voluntarily tutored by high school “success coaches.”
- Despite this part time, non-mandatory limitation, Peer Power was able to significantly improve “scholars” test scores relative to expectations predicted by educational models.



TEENS TEACHING TEENS PRODUCED BETTER BASIC SKILLS





TESTIMONIAL

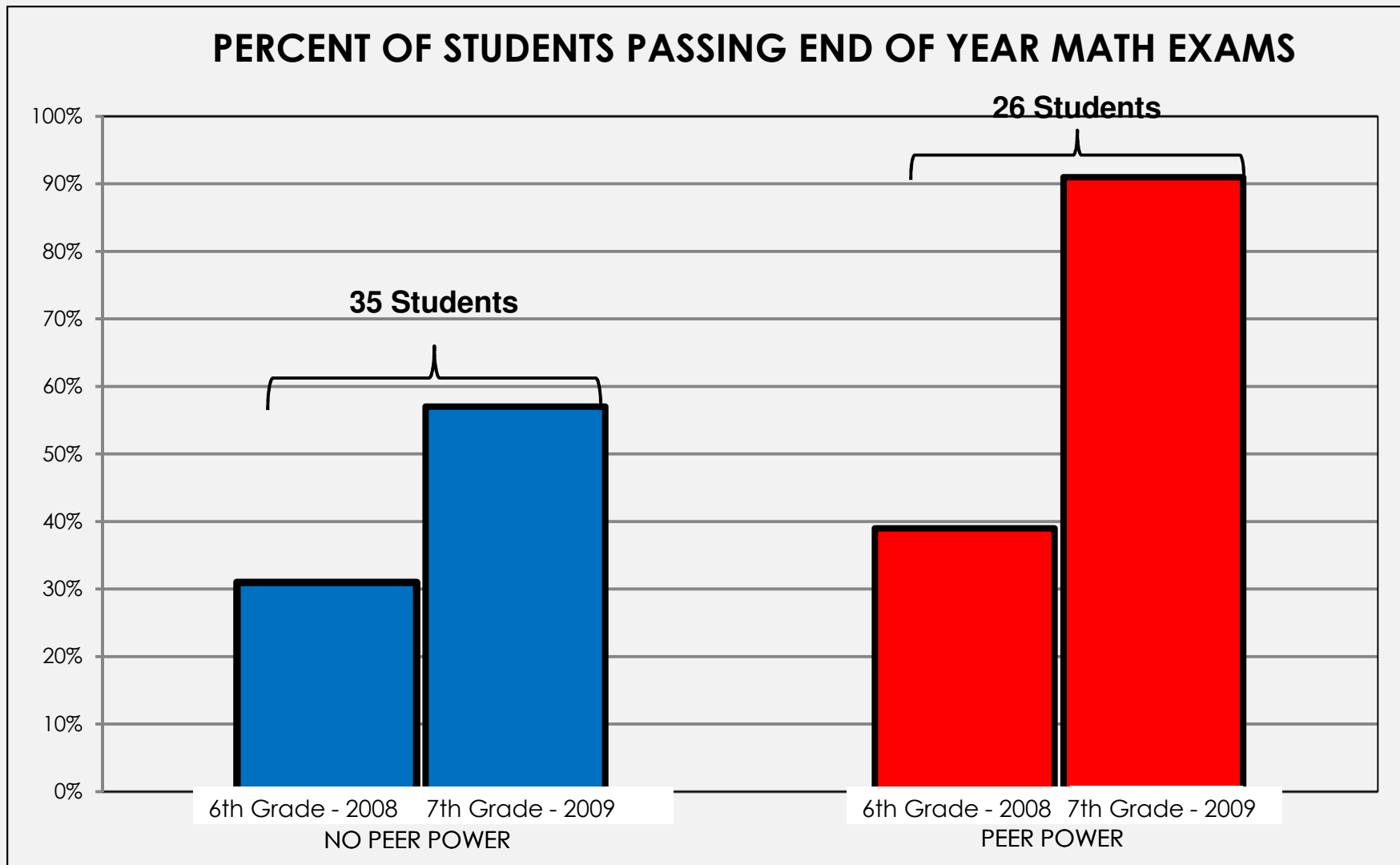
* "There is finally an **ABSOLUTE** solution to the academic and social issues that ail academic achievement in the classroom. Peer Power is a blessing to my students and me as an instructor! Through rigorous intervention, enrichment and eye-opening exposure opportunities, my students have become academically competent and assets to their community, families, and society!"

*

- * -Meah King, East High
- * Milken Educator Award Winner '11 for
- * Most Outstanding Teacher in the State of Tennessee



PEER POWER I ALSO TAUGHT ALGEBRA I IN SHELBY, MS





PEER POWER II

(THE FORCE MULTIPLIER)

- In 2015 a three way partnership was formed between the Shelby County School System (SCS), the University of Memphis (UofM) and the Peer Power Foundation.
- Therein, UofM agreed to help recruit and train “success coaches” to be placed directly in SCS classrooms. These “success coaches” are managed and compensated by the Peer Power Foundation .
- Theoretically, more mature, experienced tutors working with mandatory rather than voluntary participation by scholars and in-class structure, as opposed to constant after-school disruptions, should combine to have a powerful multiplier effect on proficiency. We are seeing this effect in Whitehaven everyday.



TESTIMONIAL

- * **“Our three-way partnership (University of Memphis, Shelby County Schools, and Peer Power) combining a major university, with a large public school system and an innovative private foundation, may very well prove to be a national model for addressing the most severe challenge facing America, today.”**

- * **Dorsey Hopson, JD.**
- * **Superintendent Shelby County Schools**

- * To our knowledge, there is no other three-way partnership between a large school system, a major university and an innovative private foundation, for whatever purpose, in the US.



PEER POWER GOES TO COLLEGE

PEER POWER AT UNIVERSITY OF MEMPHIS PEER POWER 2015-2016

	PARTICIPATION	OUTCOME	
		GRADES	PASSING vs NON PARTICIPANTS
CHEMISTRY	103 of 947	+0.3/4.0	76% VS 58%
CALCULUS	70 of 496	+0.5/4.0	60% VS 54%

COST \$70,000/173 = \$405/Student

Source: Abby L. Parrill, Associate Dean, College of Arts and Sciences; University of Memphis



PEER POWER II: “THE UBER EFFECT”

- Like Uber, the secret to Peer Power II is leveraging the value of spare capacity in existing assets. In our case, we do so by employing talented and inspired college students to tutor within the existing operations of the Shelby County School System.
- The data shows that the Shelby County School System begins the year with a largely fixed investment of roughly \$11,635 per student. Our Whitehaven experience has shown that if we commit an additional \$508 per student per year, through tutors, the marginal rate of return on this extra 4.5% investment is truly extraordinary. The “rent,” salaries, utilities, administrative costs, insurance etc. have already been paid; therefore, Peer Power investment benefits continue straight through to the bottom line.



A DEEP POOL OF POTENTIAL COLLEGIATE TUTORS

- There are 18 million students in colleges at all levels in the US.
- To make ends meet, millions of Americans work in low-skilled service sector jobs with little or no collateral value to their personal development.
- Others have simply gone on a massive borrowing binge, student loans outstanding have soared by nearly \$1 trillion over the last decade.
- Not only are many young people jeopardizing their own financial future, but we are also damaging **The American Work Ethic**. Many students would simply prefer to borrow more, rather than accept a good available job.

	STUDENT LOANS OUTSTANDING (Billions of US\$)	AS A % OF US GDP	STUDENT LOANS AS A % OF MEDIAN INCOME OF 25-34 YEAR OLDS
2006	500	3.6%	50%
2007	565	3.9%	54%
2008	645	4.4%	59%
2009	734	5.1%	69%
2010	828	5.5%	77%
2011	926	6.0%	84%
2012	1025	6.3%	91%
2013	1118	6.7%	97%
2014	1209	6.9%	100%
2015	1296	7.2%	104%
2016	1382	7.4%	105%



EARN WHILE YOU LEARN



- Peer Power tutoring is a huge potential job creating machine for these young people. An average tutor can earn a substantial \$700 per month.
- Tutoring teaches real job skills: accountability, dependability, leadership and communication.
- **Tutoring, under the proper supervision, may very well be the best possible way to learn to be a teacher.**
- Tutoring also enhances subject matter understanding. Research shows that students learn better when they teach others (Memory & Cognition Journal).
- For society, paid peer tutoring offers a truly “win-win” situation. Recognizing these facts, we feel strongly that colleges and universities will begin to aggressively offer support, such as expanded help in recruiting and training tutors, and college credits for participation.
- Our community must adopt a vertically integrated, “Memphis-centric” educational strategy, where our colleges and universities reach down into our public high schools to assist in the development of their future students.



TESTIMONIAL

- * **“Peer Power tutoring combines teaching, learning, community service and good jobs all in one package. Students will learn to communicate, work with others while reinforcing their skills and playing an important role in the educational level of students in our public schools.”**
- * Thomas Nenon, Ph.D.
Dean Of The College of Arts and Sciences,
Chairman of the Department of Philosophy
University of Memphis.



TUTORS REQUIRED FOR WHITEHAVEN HIGH SCHOOL PEER POWER II 2017-18

- * Core Curriculum at Whitehaven High School with 1970 students tutored by Peer Power
- * 3 annual classes in English
- * 3 annual classes in Math
- * 2 annual classes in Science
- * 8 classes during 4 year tenure

- * Each scholar takes 2 classes per year each 4 times a week = 8 hours
- * 1970 students X 8 hours = 15,760 tutored hours each week

- * Tutors have 9 students per hour = $15,760/9 = 1751$ tutor hours a week
- * Tutors work 15 hrs/wk $1751 \text{ tutor hours}/15 = 117$ tutors



EXAMPLE BUDGET FOR PEER POWER II 2017-18 (WHITEHAVEN HIGH SCHOOL)



- * Peer Power II Tutors earn $\$11/\text{hour} \times 1751 \text{ hours/wk} = \$19,261/\text{wk}$
- * The school year (including summer programs) is 40 weeks
- * Total direct tutor costs $\$19,261 \times 40 = \$770,000/\text{yr}$
- * Supervision, training and G&A $= \underline{\$230,000/\text{yr}}$
- * Total annual cost $\$1,000,000$

- * Average annual cost per student $\$1,000,000/1970 = \$508/\text{student}$
- * Whitehaven S.C.S. total cost - $\$22 \text{ million} / 1970 = \$11,167/\text{student}$
- * Peer Power II lifts graduation from 75% to 90% for 4.5% more dollars



ATTACKING CRIME WITH PEER POWER II



- Memphis has 50% more crime than the national median.
- Local police costs are 40% above the national median.
- At \$42,000/yr per inmate, Memphis incarceration costs are > \$200 mil/yr
- There are roughly 5,000 inmates in Shelby County jails and prisons.
- More than 80% of those incarcerated are high school drop outs.*
- Peer Power II reduced the drop out rate by 60% at Whitehaven High School over the past decade.
- We have identified a list of 17 underperforming Shelby County high schools with 13,000 students and an average drop out rate of 27%. 71% of Shelby County drop outs come from these schools.
- **If Peer Power II were introduced into these schools and enjoyed the same level of success there over the next decade that we have in Whitehaven in the past (“The Whitehaven Effect”), it would reduce the number of drop outs (think high probability of incarceration young people) by 5600 – a big, big number even compared with our admittedly huge inmate population of 5,000.**



ATTACKING CRIME WITH PEER POWER II



- 5,600 should be a big enough number to trigger an impactful cycle of positive multiplier effects as envisioned by Dr. Rajiv Grover:
 - “The count of students helped is not only the number of youths that have been directly saved but also includes the additional youths who have been helped by the directly saved ones. Peer Power unleashes a virtuous upward cycle - the impact increasing geometrically.”
- Based on flow models of Shelby County jails, shutting off the source of potential inmates should result in 25%+ reduction in crime in Shelby County over a decade.
- A 25% decline in crime would reduce our direct costs by over \$100 million/yr.
- Not to mention an overwhelmingly important quality of life and “place of good abode” considerations.
- All of these benefits would come on the back of a relatively small \$7 million annual investment in Peer Power II.



SEVENTEEN UNDERPERFORMING SHELBY COUNTY PUBLIC HIGH SCHOOLS



SCHOOL	2016 GRADUATION RATE	STUDENTS
Southwind	82.1	1507
Craigmont	81.8	936
Bolton	80.9	1324
Ridgeway	78.2	1188
Trezevant	76.4	633
East	76.1	522
Oakhaven	76.0	357
Melrose	75.7	617
Hamilton	73.4	627
Kirby	72.9	609
Douglas	70.2	447
Raleigh Egypt	68.8	742
Sheffield	68.4	765
Kingsbury	67.9	1215
Westwood	65.2	385
Manassas	64.5	345
Wooddale	52.5	962
TOTAL	73.4	13181

Source: Shelby County School System



“THE WHITEHAVEN EFFECT” COULD DRASTICALLY REDUCE THE NUMBER OF HIGH-PROBABILITY FOR INCARCERATION DROPOUTS

# of students at 17 underperforming schools	= 13,181
already dropped out (12.5%)	= 1,648
# Initial enrollment	= 14,893
	(Per 4 year cycle)
Drop outs at 25%	= 3,723
Drop outs at 10%	= 1,489
Reduction in Drop Outs	= 2,234 (60% less)
Reduction in dropouts per decade	$2.234 * 2.5 = \mathbf{5580^*}$

*A big reduction in likely candidates for incarceration even relative to our huge inmate population of **5000**.



THE COST OF APPLYING PEER POWER II TO ALL UNDERPERFORMING SHELBY COUNTY HIGH SCHOOLS

- * Seventeen Shelby County High Schools with a total of 13,181 students (average 775 students per school) have graduation rates under 85% - averaging 73.4%
- * 13,181 students X 8 hours = 105,448 tutored hours each week
- * Tutors have 9 students per hour $105,448/9 = 11,716$ tutor hours/wk
- * If tutors work 15 hours/wk, the program would need 781 tutors
- * Tutors earn \$11/hour $11,716 \times \$11 = \$128,876/\text{wk}$
- * School year is 40 weeks $\$128,876 \times 40 = \$5,155,000$ /yr tutor costs
- * Supervision, training and G&A = \$1,535,000/yr
- * **Total annual cost of Peer Power II** **\$6,690,000**
- * Total costs of these 17 Shelby County schools = \$153,361,000 per year
- * **Incremental Cost** **= 4.4%**



PEER POWER II IS UNIQUELY DESIGNED TO MEET THE CHALLENGES OF OUR TROUBLED SCHOOLS AND NEIGHBORHOODS



- The widespread failure of the traditional family unit in the neighborhoods feeding our 17 troubled schools is the heart of the problem.
- Teachers in these schools signed on to teach these kids not to raise many of them at the same time. A conventional school can not substitute for the conventional family unit when its failure is prevalent in a neighborhood. It is too much to expect one teacher to discipline and motivate 30 kids, while at the same time dealing with the fact that many are 3-5 years behind grade level in their studies.
- The magic of Peer Power II is its “Power” to use the “One-Room Schoolhouse Model” to create “Surrogate Family Units” where our tutors function as “Surrogate Parents” to give our kids the huge doses of personal attention required to develop properly both civically and academically.*
- From the very beginning in 2004, we set out to develop and prove a model which would be scalable and replicable. We feel that the data presented herein strongly suggests that we have done so.

*For Further discussion of this core concept underlying Peer Power please see “We Are Very Different, Here is Why and How”, Charles McVean, 10/21/2014



ACKNOWLEDGEMENTS

* If there is a flaw in the Peer Power concept, it is that there are a number of complex and time-sensitive moving parts requiring intense management by the field leader. There is no delegating this responsibility. There must be one man or woman on the ground where the buck stops. In our operation so far two men, our head field commanders, deserve special recognition: our partner, **Vincent Hunter** Ed. D. (Executive Principal of Whitehaven High School) and **William Sehnert** (Executive Director of the Peer Power foundation).

* We thank Michael Drury, Chief Economist, and Vadim Sinitsyn, Macro Strategist, McVean Trading and Investments, LLC, for their contributions to this document.

* **Charles D. McVean**

* **Founder**

* **The Peer Power Foundation**

* **08/29/2017**