IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

THE COALITION FOR EQUITY AND EXCELLENCE IN MARYLAND HIGHER EDUCATION, INC., et al.,	)	
Plaintiffs,	)	
v.	)	Civil No. 06-2773-CCB
MARYLAND HIGHER EDUCATION COMMISSION, et al.,	)	
Defendants.	)	

PLAINTIFFS' PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW ON REMEDIES

Michael D. Jones, Esq. (Bar No. 08634)
Karen N. Walker (Bar No. 14181)
Michael Lee Fitzgerald (*pro hac vice*)
KIRKLAND & ELLIS LLP
655 Fifteenth Street, N.W.
Washington, D.C. 20005
Telephone: (202) 879-5000
Email: mjones@kirkland.com

Jon Greenbaum (*pro hac vice*)
Brenda Shum (*pro hac vice*)
Genevieve Bonadies (*pro hac vice*)
Lawyers' Committee for Civil Rights Under Law
1401 New York Avenue, N.W., Suite 400
Washington, DC 20005
Telephone: (202) 662-8600
Email: jgreenbaum@lawyerscommittee.org

John C. Brittain (*pro hac vice*)
2513 Gadsby Place
Alexandria, VA 22311
Telephone: (832) 687-3007
Email: jbrittatty@comcast.net

ATTORNEYS FOR PLAINTIFFS

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INTRODUCTION

Over three years ago, this Court held that Maryland had violated the Constitution by failing to eradicate policies and practices regarding program duplication and that this failure had ongoing segregative effects. (Oct. 7, 2013 Opinion, Doc. No. 382 ("2013 Op.").) As required by law, the Court concluded that "remedies will be required." (*Id*. at 3.) The question now before the Court is *how* to remedy the State's violations. The Court indicated that "a remedy for unnecessary program duplication likely includes both avoidance of such duplication and 'expansion of mission and program uniqueness and institutional identity at the HBIs,'" and that "programmatic niches of areas of excellence in at least two high-demand clusters" at each HBI should be developed. (*Id*. at 59.) In response, Plaintiffs have submitted a remedial proposal, supported by substantial evidence, addressing those criteria.

Plaintiffs propose three overarching and interactive strategies to address the segregative effects of past, present, and future unnecessary program duplication. *First*, Plaintiffs propose the creation of two to three programmatic niches at each of the HBIs which rely upon a combination of unique and/or high-demand programs that have the potential to attract significant numbers of other-race students. *Second*, they propose that the State be required to enhance the quality of the current offerings at the HBIs in order to anchor the proposed programmatic niches and to strengthen the institutional identities of the HBIs. *Finally*, they submit that the State must revise its program approval process to prevent future duplication and to protect the institutional identities and program niches of the HBIs. (PRX 312 at 9 ¶ 49, 31-33 ¶¶ 189-203.)[1]

[1] Plaintiffs' citations to the trial record include the following. PRX and DRE numbers reference the remedies trial exhibits of Plaintiffs and Defendants respectively. PTX and DTX numbers reference the parties' liability trial exhibits. Cites to "Trial Tr." and "Dep. Desig." are to the remedies and liability trial transcripts including admitted deposition designations. Finally, "Doc. No." refers to the docket numbers of filings with the Court.

The Defendants, meanwhile, have made little effort to remedy the constitutional violations found. Only after being urged by the Court did the State present a "remedial proposal," which the Court rejected over a year ago as "neither adequate nor sufficiently specific." (Feb. 2, 2016 Order, Doc. No. 460 ("2016 Order") at 2.) Despite that rejection, the State has *never* come forward with any alternative remedial plans or proposals, and presented none at trial, despite a few veiled "hints" at some possible enhancements (which never came to fruition). (*See, e.g.*, 1/11/17 PM Trial Tr. at 101-02 (when asked by the Court about their "questions relating to money and letting HBIs come up with priorities," defense counsel stated "I would like to be able to tell you that there will something that will elaborate on some of the questions" but that they did not "have authority to do that").)[2]

During the trial, Plaintiffs called eleven witnesses, presenting fact, expert, and documentary evidence in support of their detailed remedial proposal, which was admitted into evidence. (PRX 21.) Defendants, in contrast, presented thirteen witnesses as well as exhibits, all of which were directed at *criticizing* the merits of Plaintiffs' proposal without submitting any competing proposal other than the one the Court had found inadequate nearly a year before the trial started. (*See* 2016 Order at 2.) Instead, Defendants' case focused on: (i) contesting that unnecessary program duplication and segregative effects had occurred; (ii) disputing that the creation of niches of unique and high-demand programs at the HBIs would attract other-race students; and (iii) asserting that the adoption of Plaintiffs' proposed remedies would be costly and the proposed transfers would be opposed by the TWIs.

The Court finds, however, that none of Defendants' three categories of proof can avoid the imposition of substantial remedies in this case, including features that are substantially

[2] In short, no further proposals or measures were forthcoming from the Maryland Higher Education Commission ("MHEC"), the University System of Maryland ("USM"), or anyone else on behalf of the State.

similar to Plaintiffs' remedial proposal. (PRX 21.) *First*, the Court has already determined that unnecessary program duplication has been established. *Second*, the Court finds that substantial evidence regarding the potential for unique and high-demand programs to attract other-race students was presented both in the first trial as well as in the remedies phase, and therefore rejects the premise that such potential does not exist. *Third*, while the Court will weigh carefully the costs and benefits of specific components of a possible remedial proposal, the Court also concludes that a violation of the Constitution cannot be excused because it would be "expensive" to remediate. Nor can it be excused because citizens whose rights have *not* been violated have objections to such remediation. Accordingly, the Court will enter a remedial order based on the findings and conclusions contained herein.

BACKGROUND

Maryland has long been on notice of the need to remedy unnecessary program duplication between its HBIs and TWIs. But, as the Court noted in its liability decision, the State has not only ignored this obligation, but has taken steps to make the problem worse. Dating back to 1969 with its first encounter with the Office of Civil Rights ("OCR"), the State's strategy has been two-fold: aggressive litigation to avoid addressing the issue, and promises, never fully fulfilled. The net effect is that the State continues to operate a dual and unequal system of higher education.

"Shameful" is the word the Court used to describe the State's history of *de jure* segregation. (2013 Op. at 3.) "[N]o evidence" of "any serious effort" is how the Court described the State's attitude toward addressing unnecessary program duplication. (*Id*. at 50.) "Unfortunate[]" is how the Court described the State's failure to live up to the Partnership Agreement. (*Id*. at 49.) "[N]either adequate nor sufficiently specific" is how the Court described

the State's hastily put together remedial plan. (2016 Order at 2.) The question for the Court now is whether the State's conduct will continue to undermine a meaningful remedy.

If the State had taken seriously the Court's liability opinion, it would have put forth a good faith effort to craft a meaningful remedy. Instead, the State did the opposite. It declined to retain any experts in desegregation, including Dr. McHenry, whom the State described in its opening statement in the liability trial as a "renown[ed] expert." (01/03/12 AM Trial Tr. at 71 (As Plaintiffs have noted, Dr. McHenry agreed with Dr Conrad.) The State steered the experts it did retain away from assessing the State's remedial plan. The State shut the HBIs out of providing any input into the State's remedial plan. Moreover, the State shared with the TWIs only the aspects of Plaintiffs' remedial plan that called for transfers from their particular institutions, and sought no input from them on any kind of affirmative remedy.

The State's trial strategy was equally disingenuous. In its opening statement, for example, after having tried to shut the HBIs out of the process entirely, the State criticized Plaintiffs' experts for drafting a remedial plan that was not sufficiently "flexibl[e]" to reflect the desires of the HBIs. The State argued:

> And therefore what we think is necessary is some flexibility. We think that the flexibility will empower the HBIs. That's something that we've tried to do, perhaps imperfectly in our collaborative programs idea to make their own decisions about what works best for them and their students

(1/9/17 AM Trial Tr. at 65-66.)

This prompted a question from the Court, which the State never answered:

> Well, what I don't understand is why you might not have worked with the Plaintiffs and their experts to come forward with an idea. I don't interpret the Plaintiffs' proposal as an absolute, as you said, straightjacket, or this is the only list.
>
> I think they were trying to do their best under the current versions to come up with some ideas that made sense for their institutions. I

> certainly agree, predicting what's going to be high-demand in the future can be difficult, but I assume that's what institutions have to do all the time.
>
> I mean, when they go to MHEC and ask for a program, they're going to be asked why this? Is this going to be necessary down the road? So you do the best you can with predictions. But I didn't see coming forth from your side.

(*Id*. at 66.) Counsel for the State gave a long, non-responsive answer, followed by "I hope that provides an answer to the Court's question." (*Id*. at 68.) Because it clearly did not, the Court noted: "I'll keep listening." (*Id*.)

From time to time during the trial, the State hinted through its questioning that it believed that elements of a remedial plan should include funds for scholarships and marketing (*see, e.g.*, 1/10/17 AM Trial Tr. at 14 (Wilson)), but never amended its proposal to include such elements. When specifically questioned by the Court on this issue, the State refused to give a clear answer. (*See* 1/11/17 PM Trial Tr. at 101-02.)

The only point on which the State has been clear is that it is opposed to the commitment it made in the Partnership Agreement—which was a consensus among all of the State's officials and experts that provided the path for dismantling the State's dual and unequal system of higher education. The State has three principal objections to Plaintiffs' remedial plan: (1) it supposedly is not supported by scientific studies, (2) it has not been implemented in Maryland or other states, and (3) it would be too costly as shown through Dr. Lichtman's results-driven assessment. None of these objections has merit.

I. THE EVIDENCE AT BOTH TRIALS AND THE COURT'S FINDINGS ESTABLISH THAT UNNECESSARY PROGRAM DUPLICATION EXISTS AND MUST BE REMEDIED.

A. Evidence at the First Trial Proved that Unnecessary Program Duplication Has Been Widespread and Continuous.

In the first trial in this case, Plaintiffs proved that Maryland state officials violated the Fourteenth Amendment, as interpreted by the United States Supreme Court in *United States v. Fordice*, 505 U.S. 717 (1992). The evidence showed overwhelmingly that Maryland had failed to eradicate policies and practices regarding program duplication that were traceable to the prior system of *de jure* segregation.

Maryland's policies and practices of unnecessary program duplication, unequal program development, and program inequality were hallmarks of its racially segregated higher education system during the *de jure* era. (*See* PTX 698 at 19 ("There is no doubt that Maryland operated *de jure* segregated public higher education programs before 1969 when OCR found the State in violation of Title VI, and that some policies, such as program duplication at geographically proximate schools, are traceable to that era."); PTX 14 at 2 ("Unnecessary program duplication is part and parcel of the prior segregated system of higher education in Maryland.").)

The duplication of academic programs between the State's HBIs and TWIs was made worse by the fact that program offerings at the HBIs were much more limited in scope. (PTX 17 at 56.) The continued segregation garnered the attention of the Office for Civil Rights, which, in 1982, entered into discussions with Maryland regarding its desegregation obligations, following Maryland's development and adoption of its "Plan to Assure Equal Postsecondary Educational Opportunity" for 1980-85. Part of this plan was the development of articulation plans between HBIs and TWIs to recruit other-race students through unique academic programs. (PTX 263 at 49.) In 1985, OCR accepted Maryland's desegregation plan, which covered the years 1985-89.

That plan likewise included the development of 25 new academic programs at the HBIs. Yet, during the period of the plan, Maryland created only 13 such programs. (PTX 44 at 14.)

Going forward, for most of the 1990s, desegregation policies in Maryland appeared to involve little more than MHEC's "monitoring" of the efforts undertaken by the State's public institutions to increase access for Blacks. As a result, white-student enrollment at the HBIs continued to decline. (PTX 851 at 19.) Although the State had passed legislation that required MHEC to create a plan to enhance the State's four HBIs, it was not until October of 1999 that Maryland and OCR entered into the Partnership Agreement aimed at ensuring Maryland's compliance with the Equal Protection Clause and Title VI of the Civil Rights Act. (*See* PTX 851 at 19; PTX 69 ¶ 50; 1/10/12 AM Trial Tr. at 36 (Conrad).) The Partnership Agreement outlined the steps Maryland had to take in order to satisfy OCR's belief that the vestiges from Maryland's *de jure* system that *still existed* would be eliminated. (1/11/12 AM Trial Tr. at 35 (Oliver).)

In Commitment 8 of the Partnership Agreement, Maryland committed to developing unique, high-demand academic programs at the HBIs, and to ensuring that those programs were not unnecessarily duplicated at nearby TWIs. Maryland understood that its obligation to develop unique, high-demand programs at the HBIs existed *irrespective of any efforts by the institutions*. (1/11/12 AM Trial Tr. at 38 (Oliver).) Commitment 8 utilized the definition of unnecessary program duplication devised by one of Plaintiffs' experts -- Dr. Clifton Conrad -- which had been adopted by the United States Supreme Court in *Fordice*, because of Conrad's role as a consultant to OCR on the agreement. (1/10/12 AM Trial Tr. at 54-55 (Conrad).)

In March 2005, the presidents of the HBIs wrote Maryland's legislature providing their own review of the programmatic development at their institutions pursuant to the Partnership Agreement. Despite the commitments in the agreement, the Presidents noted that "[t]he

relatively low level of program development at HBIs during [the Partnership Agreement] . . . was not because their proposals received unfavorable review by the State. Rather, it reflects the inadequate infrastructure on the campuses, which [made] it prudent to emphasize existing programs rather than new initiatives. The gap in program offerings has significantly widened between HBIs and majority campuses since the implementation of the [Partnership Agreement, and] . . . [t]his has substantially narrowed the areas in which HBIs can develop new programs in the future." (PTX 13 at 9.) Thus, during as well as after the Partnership Agreement, Maryland's *de jure* era policies and practices with respect to academic programming continued.

Plaintiffs presented extensive testimony during the first trial regarding the continued existence of Maryland's *de jure* era academic programming policies and practices. (*See, e.g.*, 1/10/12 AM Trial Tr. at 4 (Conrad).) Dr. Conrad (a professor of higher education at the University of Wisconsin) tabulated the number and instances of unnecessary program duplication for 2001 through 2009 and in 2010. Dr. Conrad found that between 2001 and 2009, Maryland had approved 18 new programs at TWIs that unnecessarily duplicated programs at HBIs. Of those, 13 duplicated high-demand programs at HBIs. (PTX 70 at 102.) As part of his 2010 analysis, Dr. Conrad found that statewide, 65 of the 109 noncore programs at Maryland's HBIs were unnecessarily duplicated at a TWI. (PTX 71 at 85-86.)

Dr. Conrad also determined that as late as 2010 the disparity in unequal program offerings at the HBIs and TWIs remained. Specifically, Dr. Conrad tabulated the number of unique, high-demand programs in the academic program inventory for 2010. His findings revealed a large disparity in program offerings at the HBIs and TWIs. Specifically, Maryland's TWIs offered 122 unique, high-demand programs as compared with only 11 such programs at

the HBIs. (2013 Op. at 46.) In short, unnecessary program duplication through the liability trial was demonstrated to be widespread and continuous.

B. The Court Has Already Found a Constitutional Violation and that Remedies Must Be Ordered.

The Court concluded in its 2013 Opinion that Plaintiffs had established "current policies and practices of unnecessary program duplication that continue to have segregative effects as to which the State has not established sound educational justification." (2013 Op. at 3.) This Court found that Maryland continued to have a "dual structure" of education in which there is a "substantial amount of unnecessary or non-essential program duplication between the TWIs and [H]BIs, and there is not meaningful program uniqueness at both sets of institutions." (*Id*. at 46-47 (citing 1/10/12 AM Trial Tr. at 49 (Conrad).) It found that Maryland had continued to operate a dual system of higher education in which the HBIs lacked an institutional identifiability beyond race, and had only 11 unique, high-demand academic programs compared to 122 at the TWIs. (*Id*. at 44, 46-47.)

The Court found that "MHEC has not effectively addressed unnecessary program duplication," in part because its "purported safeguards are only forward facing -- they do not address the substantial duplication that existed" previously. (*Id.* at 50.) The State's failure resulted in the continuing inferiority of the HBIs and has had an ongoing segregative effect. (*Id*. at 20.) In short, the HBIs lacked a sufficient number of academic programs with the uniqueness, quality, and demand to attract white students, who constituted only 5% of the combined student body at the HBIs. (*Id*. at 46.) The State offered no evidence that it has made any serious effort to address continuing historic duplication and "even more troublingly, the State has failed to prevent *additional* unnecessary program duplication, to the detriment of the HBIs." (*Id.* at 50-51.) In summary, the Court concluded that "the extensive program duplication in Maryland is a

traceable vestige of the *de jure* era, that it continues to exacerbate the racial identifiability of Maryland's HBIs by limiting their competitiveness in program offerings, and that there is no sound educational justification preventing the mitigation of this duplication." (*Id*. at 59.)

Similarly, this Court found that in the absence of a competitive academic advantage, white students have less incentive to enroll in what is otherwise perceived to be a school for black students. (2013 Op.at 53.) The HBIs will not be able to increase their non-black enrollment if their programmatic offerings continue to be unnecessarily duplicated. (*Id*. at 56.) This Court has therefore recognized the importance of institutional identity in overcoming the reluctance that white students may have to enrolling at an HBI. (*Id*. at 53-54.)

In doing so, this Court indicated that in order for racial desegregation to occur at the HBIs, they must offer programs not offered at the TWIs. (*Id*. at 52-53.) When the HBIs possess unique programs, "they will be more empowered to attract a diverse student body." (*Id*. at 54.) Maryland's own history confirms this. During the 1960s and 1970s, significant numbers of white students graduated from unique, high-demand programs offered by Maryland's HBIs. (*Id*. at 48.) Unfortunately, these early gains in integrating Maryland's HBIs were abandoned "almost as soon as they began" and the investment in the TWIs and ongoing duplication of programs led to decreased white enrollment at the HBIs. (*Id*. at 49.)

In fact, this Court noted that Maryland's 2000 Partnership Agreement with OCR committed the State to developing unique, high-demand programs and avoiding future duplication. (2013 Op. at 49.) "As embodied in the OCR Partnership agreement, a remedy for unnecessary program duplication likely includes both avoidance of such duplication and 'expansion of mission and program uniqueness and institutional identity at the HBIs.'" (*Id*. at

59) (citing and quoting Final Report on the OCR Partnership Agreement (February 15, 2006), PTX 8 at 73).)

In making its findings, the Court relied on Plaintiffs' expert, Dr. Conrad, "the nation's preeminent scholar on this issue, having served as a testifying expert and conducted similar duplication analyses for OCR in *Fordice* and its progeny." (*Id*. at 45.) The Court noted that "Dr. Conrad's duplication findings are comparable to, and in some cases more pronounced than, the duplication found in Mississippi during the *Fordice* remand proceedings that held the state liable for failing in its desegregation efforts." (*Id.* at 46.) The Court agreed with Dr. Conrad and found that "Maryland continues to have a dual structure of higher education" in which "there is a substantial amount of unnecessary or non-essential program duplication" between the HBIs and TWIs. (*Id*. at 46-47 (internal quotations omitted).)

This Court specifically found that Maryland had "failed to prevent *additional* unnecessary duplication" in light of Dr. Conrad's duplication analysis. (*Id*. at 45-51 (emphasis in original).) Based on that data, the Court found that statewide 60% of the noncore programs at Maryland's HBIs are unnecessarily duplicated, compared with only 18% of the noncore programs at the TWIs. (*Id*. at 45.) Regionally, the record showed that 38% of the HBI programs within the Baltimore region were unnecessarily duplicated. (*Id*.) While the evidence showed that duplication varied by degree level, at the time of the liability trial the TWIs had six times as many unique masters programs as the HBIs and over thirteen times as many unique doctoral programs. (*Id*. at 46.)

The Court indicated that "[r]emedies will be required" to dismantle the extensive unnecessary program duplication in Maryland. (*Id*. at 3.) The Court specifically contemplated that a remedy is likely to include revised policies and practices to ensure both the "avoidance of

such duplication" in the future and the "expansion of mission and program uniqueness and institutional identity at the HBIs." (*Id*. at 59. (quotations omitted).) After discussing the obstacles the HBIs had traditionally faced in attracting other-race students, the Court found that "[w]here HBIs possess unique programs, however, they will be more empowered to attract a diverse student body." (*Id*. at 54.)

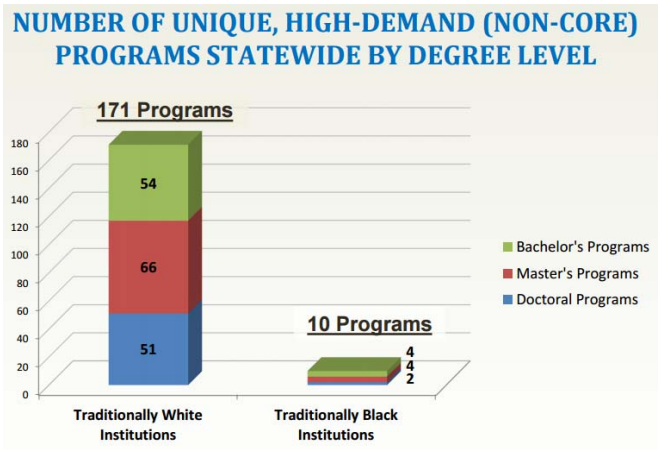
In discussing what remedies would likely be required, the Court began by suggesting the development of niches that included unique and/or high-demand programs to create institutional identity at the HBIs:

> As embodied in the OCR Partnership Agreement, a remedy for unnecessary program duplication likely includes both avoidance of such duplication and "expansion of mission and program uniqueness and institutional identity at the HBIs." (Final Report on the OCR Partnership Agreement (February 15, 2006), PTX 8, at 73.) Dr. Allen was tasked by the Coalition with developing remedies, and his recommendation that "[e]ach HBI should develop programmatic niches of areas or areas of excellence in at least two high-demand clusters within the next three to four years" appears to be a promising starting point.

(*Id*. at 59.) In addition to noting that each HBI should develop at least two "programmatic niches" or "areas of excellence," the Court also indicated that it is also likely that "the transfer or merger of select high-demand programs from the TWIs to the HBIs will be necessary." (*Id*.) Finally, the Court specifically contemplated that a remedy would likely include revised policies and practices to ensure both the "avoidance of such duplication" and the "expansion of mission and program uniqueness and institutional identity at the HBIs." (*Id*. at 59 (quotations omitted).) Plaintiffs' remedial experts Drs. Conrad and Allen followed the Court's guidance in developing their remedial plan. (PRX 312.)

C. The Evidence Presented in the Second Trial Shows that Duplication Still Exists and the HBIs Still Lack the Unique and High-Demand Programs Needed to Attract Other-Race Students.

After the first trial, the Court found that Maryland's HBIs only offered 11 non-duplicated, high-demand, noncore programs compared to 122 such programs at the TWIs. (*Id.*) As shown in the remedy phase, this overall programmatic imbalance between Maryland's HBIs and TWIs has actually increased. At the second trial, Dr. Conrad testified that his updated analysis of statewide duplication reveals that the TWIs now have almost 400 unique, non-core programs compared to 60 at the HBIs. When focusing more specifically on noncore programs which are *both* unique and high-demand, Dr. Conrad found that the imbalance is even greater in that there are 171 such programs at Maryland's TWIs yet only ten at the four HBIs combined. (1/24/17 Trial Tr. at 56-57 (Conrad); PRX 317 at Exhibit 5.)



The record at trial demonstrated that Maryland must still address the systemic level of inequality reflected in the number and degree level of program offerings between the HBIs and TWIs as a whole that frustrates the ability of the HBIs to compete for students of all races. (PRX 312 at 28 ¶ 163.) The evidence continues to show that "a significant amount of unnecessary program duplication continues to exist in Maryland at both the statewide and regional levels."

(*Id.* at 7 ¶ 41.) This evidence presented at trial also shows that this duplication continues to have segregative effects. (*Id.*)

Based on a new 2016 analysis, Professors Conrad and Allen determined that the TWIs in Maryland had approximately 396 non-core programs that were unique and 171 of those were also high-demand. (*Id.* at 7-8 ¶¶ 42-43.) On average, the TWIs had 56.6 unique programs per institution and 24.4 unique *and* high-demand programs per institution. In contrast, the HBIs had 15 unique programs per institution but only 2.5 unique *and* high-demand programs. (*Id.* at 7 ¶ 42.) As a result, "the TWIs continue to dominate programmatic or curricular niches, thereby undermining the ability of the HBIs to achieve a level of competitive advantage necessary to overcome the stigma associated with their racial identifiability." (*Id.*)

In the Baltimore region, the competitive advantage of the TWIs was particularly striking. (*Id.* at 8 ¶ 43.) There, "the TWIs have 404 proximately unique, non-core programs, including 171 programs which are also high-demand." (*Id.*) Meanwhile, the HBIs "have a total of 48 proximately unique, non-core programs and 7 are also high-demand." (*Id.*) The absence of a meaningful number of unique and high-demand programs "continues to impede the ability of the HBIs to establish an institutional identity based on their academic programs." (*Id.*)

As a result, Maryland's HBIs have remained largely segregated. According to the 2016 MHEC Data Book (PRX 330), Bowie had 3.5% white enrollment, Coppin had 1.4%, Morgan had 3.3% and UMES had 14.5%. (PRX 312 at 7 ¶ 44.) Total white enrollment at all four HBIs was just over 5% for the fall of 2014. (PRX 330 at 14-15.)

In preparing their remedies, Professors Conrad and Allen examined whether there continues to be unnecessary program duplication and its effect on institutional identity. (PRX 312 at 21-22.) To do so, they analyzed "the extent to which unnecessary program duplication

continues to exist between Maryland's HBIs and TWIs" and "whether the HBIs demonstrate meaningful programmatic uniqueness sufficient to give them an institutional identity beyond race." (*Id*. at 21 ¶ 127.) They concluded that unnecessary program duplication "continues to be problematic for the HBIs in significant and enduring ways." (*Id.* ¶ 128.)

- The TWIs "continue to have significantly more programs across all degree levels." (*Id*. at 21¶ 128.)
- The HBIs "offer very few programs that students are unable to access at one or more of Maryland's TWIs" and thus "the HBIs do not have distinct institutional identities." (*Id*.)
- The TWIs "continue to be better positioned to create new programs and establish dominance in other programmatic niches as a result of this programmatic disparity." (*Id*. at 23 ¶ 129.)
- This advantage "exacerbates the corresponding competitive disadvantage" of the HBIs and "makes it nearly impossible for them to expand their programmatic offerings" without duplicating those at the TWIs. (*Id*.)

Based on Conrad and Allen's analysis, "the number of both unique and high-demand programs at Maryland's HBIs continues to be insignificant when compared to the TWIs." (*Id*. ¶ 130.) Conrad and Allen opined that "these programmatic disparities produced by unnecessary duplication continue to have segregative effects and undermine the ability of the HBIs to cultivate a distinctive academic institutional identity." (*Id*. ¶ 132.) [3]

Plaintiffs went on to introduce a substantial amount of additional evidence demonstrating the desegregative potential of new (unique and high demand) programs. For example, the federal government's own desegregation efforts were shown to have relied on new or enhanced academic programs to address the segregative effects of unnecessary program duplication and

[3] Statewide program duplication is relevant to the extent it offers an indication of the scope of duplication in the system as a whole. (PRX 312 at 21 ¶ 121.) It reveals the extent of the overall programmatic imbalance in favor of the TWIs and the competitive disadvantage of the HBIs in terms of their ability to enroll white students. (*Id*.) Regional duplication is also informative in that it reveals the extent to which an HBI may compete with one or more TWIs for the same set of students within an overlapping service area. (*Id*. at 21 ¶ 122.) When designing a remedy, both are important. (*See* 1/24/17 AM Trial Tr. at 56 (Conrad).)

strengthen the role of HBIs in a state's system of higher education. (*See* DRE 162 at 183, Appendix A – Revised Criteria Specifying the Ingredients of Acceptable Plans to Desegregate State Systems of Public Education (identifying acceptable strategies to desegregate state systems of higher education, including the expansion of other-race enrollment at the HBIs through new or enhanced programs and courses of study).) Plaintiffs' experts identified numerous other pieces of evidence similarly establishing the desegregative potential of unique programs. (*See, e.g.*, 1/18/17 Trial Tr. at 5-12 (Allen).)

Plaintiffs have presented overwhelming evidence that a remedy is required to address past and continuing unnecessary program duplication. The Court will now turn to the legal framework applicable to its remedial task.

II. THE LEGAL FRAMEWORK APPLICABLE TO THE COURT'S REMEDIAL TASK IS WELL-ESTABLISHED.

The standards for conducting a remedial inquiry are clear. *First*, the burden is on the Defendants to come forward with a remedial plan to remedy the constitutional violation at issue. If they fail to do so, the Court is to exercise its broad equitable powers to craft an appropriate remedy. *Second*, the Court is charged with adopting a remedial plan that will achieve the greatest reduction in the identified segregative effects. *Third*, the plan should be determined to be educationally sound and practicable. *See Knight v. State of Alabama*., 14 F.3d 1534 (11th Cir. 1994).

In *Knight*, the Eleventh Circuit described the court's remedial obligations under *Fordice* in terms of the afore-mentioned three steps:

> The state is obligated to adopt, from among the full range of practicable and educationally sound alternatives to the challenged policy, the one that would achieve the greatest possible reduction in the identified segregative effects. Moreover, because the obligation to remedy the segregative effects of vestiges of segregation is an affirmative duty borne by the state, the onus is

> not on the plaintiffs to propose the remedy options to be considered. Rather, a court should consider the full range of all possible alternative remedies, including closure, when determining which would achieve the greatest possible reduction in the identified segregative effects. This examination of the practicability and educational soundness of possible alternatives or modifications to a challenged policy constitutes the third step in the *Fordice* analysis.

14 F.3d at 1541–42 (citations omitted). Accordingly, courts in higher education desegregation cases are to give defendants the first opportunity to come forward with an effective remedy, and where defendants do not meet that burden the Court should consider all available alternatives. Courts should then adopt the remedy that can achieve the greatest possible reduction in the identified segregative effects in a manner that is educationally sound and practicable.

The framework is similar to the longstanding Supreme Court authority for the proper legal framework in K-12 cases.[4] As the Supreme Court explained in *Green v. Cty. Sch. Bd. of New Kent Cty., Va.*, 391 U.S. 430, 439 (1968), the basic legal framework for how a court should proceed once a legal violation of unconstitutional segregation has been found is as follows:

> The burden on a school board today is to come forward with a plan that promises realistically to work, and promises realistically to work now.
>
> The obligation of the district courts, as it always has been, is to assess the effectiveness of a proposed plan in achieving desegregation. There is no universal answer to complex problems of desegregation; there is obviously no one plan that will do the job in every case. The matter must be assessed in light of the circumstances present and the options available in each instance. It is incumbent upon the school board to establish that its proposed plan promises meaningful and immediate progress toward disestablishing state-imposed segregation. It is incumbent upon the district court to weigh that claim in light of the facts at hand and in light of any alternatives which may be shown as feasible and more promising in their effectiveness. Where the court finds

[4] While the remedies proscribed may differ, the same equitable principles applied in K-12 desegregation cases govern courts fashioning remedies in higher education cases. *See generally Fordice*, 505 U.S. at 729–30.

> the board to be acting in good faith and the proposed plan to have real prospects for dismantling the state-imposed dual system "at the earliest practicable date," then the plan may be said to provide effective relief. Of course, the availability to the board of other more promising courses of action may indicate a lack of good faith; and at the least it places a heavy burden upon the board to explain its preference for an apparently less effective method. Moreover, whatever plan is adopted will require evaluation in practice, and the court should retain jurisdiction until it is clear that state-imposed segregation has been completely removed.

Green, 391 U.S. at 439.

The *Green* framework also makes clear that once the court has ordered the most effective remedy, the court has the responsibility of monitoring the defendants' conversion to a unitary system of education until state-imposed segregation is eradicated. Every court implementing a remedy under *Fordice* has additionally established a process and some form of oversight, whether through a special master, oversight committee, or sometimes both to ensure full dismantlement of the dual system occurs. *See Ayers v. Fordice*, 879 F. Supp. 1419, 1494 (N.D. Miss. 1995) (*Ayers II*) (Mississippi: Monitoring Committee); *Ayers v. Thompson*, 358 F.3d 356, 363 (5th Cir. 2004) (Mississippi: Monitor); *Knight v. State of Alabama*, 900 F. Supp. 272, 368-69 (N.D. Alabama 1995) (*Knight II*) (Alabama: Long Term Planning and Oversight Committee); *Geier v. Tennessee*, 597 F.2d 1056, 1062-64 (6th Cir. 1979) (Tennessee: Monitoring Committee, Implementation Committee, Bi-racial Advisory Committee, and Merger Advisory Committee); *United States v. Louisiana*, 811 F. Supp. 1151, 1166 (E.D. La. 1992) (Louisiana: Monitoring Committee); http://courtappointedmasters.org/users/caggonzalez-lawcom (Alabama: Special Master, Tennessee: Mediator and Special Master); Alfreda Diamond, *Black, White, Brown, Green and Fordice: The Flavor of Higher Education in Louisiana and Mississippi*, 5 Hastings Race & Poverty L.J. 57, 107 (2008) (Louisiana: Special Master).

A. Defendants Have the Burden to Come Forward with an Adequate Remedy and if They Fail the Court Must Invoke its Broad Equitable Powers to Fashion a Comprehensive Remedy.

Contrary to Defendants' contentions in their pretrial memorandum, Plaintiffs do not have the burden of demonstrating the effectiveness of their proposed remedy for this Court to order such relief. "[B]ecause the obligation to remedy the segregative effects of vestiges of segregation is an affirmative duty borne by the state, the onus is not on the plaintiffs to propose the remedy options to be considered." *Knight*, 14 F.3d at 1541. *See also Buckner v. Cty. Sch. Bd. of Greene Cty., Va.*, 332 F.2d 452, 453-54 (4th Cir. 1964) ("it would be unreasonable for the court to require plaintiffs to formulate plans for desegregation" because the burden "rests upon the defendants"). Where, as here, a dual system is in place, the burden is on the defendant "to come forward with a plan that promises realistically to work." *Green,* 391 U.S. at 439. Accordingly, it is Defendants who had the duty and initial opportunity to propose a remedy that will *eliminate* the continuing violation. It was the State's obligation to come forward with an acceptable remedy to cure the constitutional violation and its resulting effects. *See id.* at 439 ("[i]t is incumbent upon the [defendant] to establish that its proposed plan promises meaningful and immediate progress" toward desegregation).

Additionally, both *Fordice* and *Green* make clear that whether the Defendants' efforts to propose a remedy are in good faith are an appropriate consideration. The Court may infer lack of good faith or place a "heavy burden" upon the state to justify its preference for an apparently less effective method and the state must still prove that it has counteracted and minimized the segregative impact of such policies "to the extent possible." *Fordice*, 505 U.S. at 744; *see also Green*, 391 U.S. at 439.

If the State fails to propose a plan that satisfies its constitutional obligations, the Court must then exercise its equitable authority as it sees fit in order to fashion an appropriate remedy.

See Swann v. Charlotte-Mecklenburg Bd. of Educ., 402 U.S. 1, 15 (1971) (where defendants "fail in their affirmative obligations," the trial court's authority may be invoked and "the scope of a district court's equitable powers to remedy past wrongs is broad"). The scope of a court's equitable powers is broad, for "breadth and flexibility are inherent in equitable remedies." *Knight v. Alabama,* 787 F. Supp. 1030, 1377 (N.D. Ala. 1991) (*Knight I*), *vacated and rev'd in part on other grounds,* 14 F.3d 1534 (11th Cir. 1994). In exercising those powers to decide on an appropriate remedy, the Court may consider all possible remedies, whether proposed by Plaintiffs, other parties (such as the HBIs who have each submitted proposals), the Court's own ideas, or a combination of these. *See, e.g., Belk v. Charlotte-Mecklenburg Bd. of Educ.*, 269 F.3d 305, 314 (4th Cir. 2001) (where defendants "continued to drag their feet," only putting forward "an enervated desegregation plan," the trial court was forced "to craft an efficacious desegregation plan").

B. The Remedial Plan Should Be Designed to Achieve the Greatest Possible Reduction in Segregative Effects.

Under *Fordice*'s legal framework, an appropriate remedy must be designed to "bring about the greatest possible reduction in the segregative effects." *Knight,* 14 F.3d at 1540-42; (*see also* 2013 Op. at 23-24). The Court's remedy should be that "most likely to achieve the remedial purpose into the future." *Knight II,* 900 F. Supp. at 285. The strategies adopted must not only reduce segregation, but should eliminate or minimize the practices responsible for that segregation. *Fordice*, 505 U.S. at 744-45. In fashioning a remedial decree the Court should consider the full range of alternatives that will eliminate Maryland's traceable practice of program duplication and reduce its segregative effects. The contours of a court's remedy should be guided by three primary considerations: the nature and scope of the violation, restoring the victims of discriminatory conduct to the position they would have occupied in the absence of

such conduct, and reconciling public and private needs. *Milliken v. Bradley*, 433 U.S. 267, 280–81, 288 (1977) (*Milliken II*). To craft a remedial decree, "a court should consider the full range of all possible alternative remedies . . . when determining which would achieve the greatest possible reduction in the identified segregative effects." *Knight*, 14 F.3d at 1541.

In this way, courts have broad discretion to adopt a comprehensive remedial approach to dismantling the violation and its associated segregative effects, as explained by the Supreme Court in the *Freeman* case, which discussed the application of this principle to the so-called *Green* factors that apply in K-12 cases:

> We have long recognized that the *Green* factors may be related or interdependent. Two or more *Green* factors may be intertwined or synergistic in their relation, so that a constitutional violation in one area cannot be eliminated unless the judicial remedy addresses other matters as well. … As a consequence, a continuing violation in one area may need to be addressed by remedies in another.

Freeman v. Pitts, 503 U.S. 467, 497 (1992). *See also Vaughns v. Bd. of Educ. of Prince George's Cty.*, 742 F. Supp. 1275, 1291 (D. Md. 1990) ("the components of a school desegregation plan are interdependent upon, and interact with, one another, so that changes with respect to one component may impinge upon the success or failure of another").

Remedies for dual systems of higher education have similarly adopted a comprehensive approach to curing the systemwide violation. In *Knight II*, the court justified its decree by confirming it "ha[d] considered the full range of remedies available" and fashioned a decree the court found "to be the most desegregative alternative that is educationally sound and practicable." 900 F. Supp. at 348 ("The Court's Decrees function as an organic whole, each element thereof operating with the other elements to achieve the desegregation goal.").

When fashioning a remedy to address Maryland's dual system of higher education, this Court must be guided by general equitable principles, *see Brown v. Board of Education* ("Brown

II"), 349 U.S. 294, 300 (1955), and the scope of its equitable powers is broad. *See Knight I*, 787 F. Supp. at 1377 (citing to *Milliken v. Bradley* (*Milliken II*), 433 U.S. 267, 280-81 (1977) (holding that "breadth and flexibility are inherent in equitable remedies"), *vacated and rev'd in part on other grounds*, 14 F.3d 1534 (11th Cir. 1994).

The specific remedies required will be determined by the nature of the violation, but the strategy implemented must in fact be "remedial" in nature in that it should seek to "restore the victims of discriminatory conduct to the position they would have been in" absent the illegal conduct. *Knight I,* 787 F. Supp. at 1377. While the remedy imposed must relate to the violation found, a remedy does not exceed the underlying violation as long as it is tailored to cure the condition that offends the Constitution. *Milliken II,* 433 U.S. at 282 (citing *Milliken v. Bradley* (*Milliken I*), 418 U.S. 717, 738 (1974)). A remedy's components are appropriate when they are aimed at eliminating the condition that violates the Constitution or that "flow[s] from such a violation." *Id.* at 282.

A remedial plan designed to establish a unitary system of education will be judged by its effectiveness in correcting past constitutional violations. *Swann*, 402 U.S. at 25, 28. As articulated in *Fordice,* successful desegregation of a higher education system requires a state to take "the necessary steps to ensure that [student] choice now is truly free." *Fordice*, 505 U.S. at 742-43. The strategies adopted must not only reduce segregation, but should eliminate or minimize practices responsible for that segregation to the extent possible. *Id.* at 744-45 (O'Connor, J., concurring).

The court must "carefully examine [the State's] proffered justifications to ensure that such rationales do not merely mask the perpetuation of discriminatory practices." *Id.* While acknowledging that courts should respect "local control" in the absence of a constitutional

violation, the Supreme Court has likewise emphasized that "no state law is above the Constitution. School district lines and the present laws with respect to local control, are not sacrosanct and if they conflict with the Fourteenth Amendment [then] federal courts have a duty to prescribe appropriate remedies." *Milliken I*, 418 U.S. at 744; *see also Swann*, 402 U.S. at 16 ("Judicial authority enters only when local authority defaults.")

Violations with a systemwide nature and impact (which the Court has found in this case) create a presumption that the remedy should encompass every school that remains segregated. *See Swann*, 402 U.S. at 26; *see also Keyes v. Sch. Dist. No. 1, Denver, Colo.*, 413 U.S. 189, 208–09 (1973). In *Swann*, the Supreme Court held that once liability for maintaining a "dual school system" is found, there is an obligation to dismantle the dual system "root and branch" by fastening a remedy across the system. *Swann*, 402 U.S. at 15. "If the unlawful *de jure* policy of a school system has been the cause of the racial imbalance [in student demographics], that condition must be remedied. The school district bears the burden of showing that any current imbalance is not traceable, in a proximate way, to the prior violation." *Freeman*, 503 U.S. at 494.

In analyzing the effectiveness of a remedy, a court can draw on data and experts from various disciplines, whether put forward by the parties or selected by the court. As the court instructed in *Ayers v. Allain*, 893 F.2d 732 (5th Cir. 1990), in developing a desegregation plan:

> [T]he court should have the assistance of other disciplines. Psychologists, sociologists, economists, engineers, doctors, and professionals from all relevant areas of learning play a role. Windows must open to ventilate the court room with ideas from the winds of truth. To this end, testimony, depositions, cross examinations and opinions can assist.

Ayers, 893 F.2d at 756 (holding not disturbed by Supreme Court's decision in *Fordice*).

Until Maryland addresses the segregative effects of unnecessary duplication, it remains in violation of the Constitution. This Court must therefore adopt a set of strategies designed to alter the racial makeup of the HBIs. Although controlling student choice is not the end in and of itself, an effective remedy is expected to produce a significant increase in other-race enrollment. S*ee Knight*, 14 F.3d at 1540-42 (state should adopt the practicable and educationally sound alternative designed to achieve the greatest possible reduction in segregation) (citing *Fordice*).

This increase in white enrollment should be sufficient to establish a "critical mass" of white students necessary to create an atmosphere in which white students are comfortable enrolling at an HBI. *See Knight II*, 900 F. Supp. at 319-20. The goal is not an "ideal ratio or mix of black and white students," but rather a system in which "race is irrelevant" and equal protection is a reality. *See Geier v. Alexander*, 593 F. Supp. 1263, 1267 (M.D. Tenn. 1984), *aff'd*, 801 F.2d 799 (6th Cir. 1986). Increases may be "gradual" but should also be sustained over time. Courts may therefore consider the long-term effects of desegregation, selecting those remedies "most likely to achieve the remedial purpose into the future." *Knight II*, 900 F. Supp. at 285, 320.

Understanding why students choose a particular institution may be "helpful in determining whether a particular vestige of the past shapes or impacts student choice and determines the result." *Ayers II*, 879 F. Supp. at 1471. Where there has been a specific finding of unnecessary duplication, courts have explored the extent to which "meaningful programmatic uniqueness may be gained which would bring about significant white enrollment through the elimination and/or transfer of existing programs at other institutions and the feasibility/educational soundness of such elimination and/or transfer." *Id.* at 1495.

The remedy here should eliminate or minimize the policies and practices responsible for that segregation to the extent possible. *Fordice,* 505 U.S. at 744-45 (O'Connor, J., concurring) (a state must eliminate or negate insofar as possible the segregative impact of its unconstitutional policies). This may be evidenced, in part, by a significant and sustained increase in other-race enrollment at the HBIs. Rather than specifying the precise level of other-race enrollment indicative of desegregation, *Fordice* recognized that student demographics may reveal the persistence of an impermissible policy or practice. *See id.* at 742-43. Successful desegregation requires the State take steps to ensure that "[student] choice now is truly free." *Id. at* 742-43.

C. The Remedial Plan Should be Educationally Sound and Practicable.

Under *Fordice*, the State bears the burden of showing that there is no educationally sound method to practicably eliminate the vestige of unnecessary program duplication, *or* reduce its vestigial effects insofar as possible through less segregative alternatives. *Knight,* 14 F.3d at 1551-52; *see also* 2013 Op. at 23-24 (citing *Fordice*) (quotations omitted). This is a "substantial burden." *Ayers v. Fordice*, 111 F.3d 1183, 1213 (5th Cir. 1997); *see also Knight*, 14 F.3d at 1541 (*citing* to *Fordice* for the principle that "the state's burden of proving that such alternatives are impracticable or educationally unsound is a heavy one and the circumstances in which a State may maintain a policy or practice traceable to *de jure* segregation that has segregative effects are narrow'"). Having already found the State liable for its failure to show the State's legitimate educational objectives were an unavoidable driver of unnecessary program duplication, the Court's task at this remedial stage is to determine the remedy that can reduce the vestigial effects as far as possible in a practicable manner that remains educationally sound. *Knight*, 14 F.3d at 1542. An educationally sound and practicable remedy must be feasible while furthering "a legitimate educational objective." *Knight II*, 900 F. Supp. at 285; (2013 Op. at 23, 56-57.) With

regard to practicability, courts have determined that a practicable remedy is that most likely to achieve the remedial purpose into the future if properly managed. *Knight II*, 900 F. Supp. at 285.

Remedies which may disrupt the system or even produce system inefficiencies are not *per se* impracticable or inconsistent with sound educational policy. In Alabama, the Eleventh Circuit held that even assuming the remedy proposed "would result in a research and extension system somewhat less efficient than the one currently operating it would not inescapably follow that such inefficiency would render the proposed modified system impracticable or educationally unsound." *Knight*, 14 F.3d at 1551. In a similar vein, courts recognized that a remedy may be workable, or practicable, for dismantling a dual education system even if during the transition period it poses considerable disruption. Reasonable remedies may be "administratively awkward, inconvenient, and even bizarre in some situations and may impose burdens on some; but all awkwardness and inconvenience cannot be avoided in the interim period when remedial adjustments are being made to eliminate the dual school systems." *Swann*, 402 U.S. at 28.

Instead, a more nuanced set of considerations guides the Court's analysis of educational soundness and practicability. Courts focus this inquiry on the proposed remedy's likely success, sustainability, and capacity to strengthen the overall system of higher education while managing disruption to students to achieve the legitimate educational objective. To this end, the district court in *Knight* examined educational soundness by contemplating a variety of factors: whether a remedy furthers higher education goals regarding college participation rates and quality of educational programs; aids in the creation of stronger institutions; provides incentives to "do right" with limited court oversight; takes into account and works within normal political, educational, and administrative processes as far as possible; minimizes the collateral and unintended effects on a state's system of higher education as far as possible; acknowledges that

achieving and maintaining accreditation is crucial to institutions; maintains integration at the TWIs; and brings the state and its system of higher education into compliance with the Constitution, Title VI, and *Fordice*. *See Knight II*, 900 F. Supp. at 284-85.

A remedial plan is sound and practicable if it is sufficiently defined and shows sufficient promise to effectuate the remedial objective. A court retains the authority to adopt a remedy that has not yet been "tested" or defined in its entirety so long as it is shows the potential to remediate. While courts in equity will consider a remedy's likelihood for success, a court has broad discretion to adopt remedial approaches which have not yet been fully applied or defined in terms of precise standards for implementation, so long as such remedies are "sufficiently defined" and demonstrate "sufficient promise' to dismantle aspects of the dual system. *Ayers v. Fordice*, 111 F.3d at 1201. The risk of an untested remedy is mitigated by a district court's oversight powers during the duration of the remedial decree which allows for prompt remedial revisions, if necessary, to ensure the decree effectively eradicates the segregation attributable to the state. *Id.*

The Fifth Circuit's analysis in *Ayers* is instructive on this point. There, the plaintiffs challenged the district court's adoption of spring screening and summer remedial programs to cure segregative admissions policies on the grounds the district court abused its discretion by selecting a "program that was untested and its standards not fully established at the time of trial." *Id.* at 1201. The Fifth Circuit rejected this argument, holding the district court retained the authority to adopt such an untested remedy when the record demonstrated it was sufficiently defined and demonstrated "sufficient promise" to achieve the remedial objective. On these facts, the untested remedy should be able "to prove itself in operation." *Id.* (citing *Green*, 391 U.S. at 441). Correspondingly, the Fifth Circuit praised the district court for its "proper retention of

jurisdiction over this action indicat[ing] its intent to examine this important component of the admissions system once the relevant data becomes available." *Id*. The court stressed: "If the district court ultimately concludes that the spring screening and summer remedial program (as it may be modified) is unable to any significant degree to achieve its objectives, then the court should, if possible, identify and implement another practicable and educationally sound method for achieving those objectives." *Id.*

While a district court's equitable power to remedy state-sanctioned segregation is generally characterized by its "flexibility rather than rigidity," the Supreme Court has held that a decree should provide the state with "a rather precise statement of [their] obligations under a desegregation decree." *Missouri v. Jenkins,* 515 U.S. 70, 101 (1995). In *Jenkins,* the Supreme Court indicated that such precision could be achieved by placing predictable limitations on the types of remedies that could be ordered, the general level of enhancement that should be ordered and/or estimates for the approximate duration of the remedial order. (*Id*. at 98-100.)

In the context of remediating dual systems of higher education, the courts in *Ayers* and *Knight* established such predictable limitations on the State's remedial obligations with regard to institutional programming by outlining the parameters by which particular programmatic initiatives shall be pursued. These parameters varied in specificity. For example, *Knight*'s 1995 decree ordered programs be developed at the HBIs in the areas of allied health, engineering, and accounting programs as well as two graduate programs in subject areas that would be determined at a future date based on subsequent HBI proposals. *Knight II*, 900 F. Supp. at 370-72. The district court did not specify the funding that would be provided for each program at the outset of its order but rather detailed a process for program proposals, review, and recommendation to the Court. *Id*. The precise levels of funding and resource-allocation required to support each

mandated program would not be determined until submitted to the Court's expert committee for review and recommendation to the Court. *Id.* Likewise, the mandated new programs had no firm guarantee of accreditation approval, but rather the Court required that the mandated process of program development, review, and recommendation facilitate collaboration among the necessary stakeholders to ensure the "creation of a program that can secure independent accreditation." *Id.*

In a similar manner, the district court in Mississippi set forth general parameters for programmatic initiatives, with varied specificity in terms of the funding required for implementation. In some instances, the *Ayers* court ordered specific levels of state appropriation be allocated to specific programmatic centers. *See, e,g,, Ayers II*, 879 F. Supp. at 1495 ("Beginning no later than July 1, 1996, the State shall provide special funds for the Small Farm Development Center at ASU to provide annual research and extension funds to match dollar-for-dollar federal funds appropriated to ASU up to an aggregate of $4 million each year."). But in several other instances no funding levels were specified in advance of the State Board and court-appointed monitoring committee determining the needs of the program. *Id.* ("Effective no later than the 1996–97 academic year, a MBA program shall be offered at ASU's Natchez Center. The State shall provide special funding for this program addition at ASU including related capital improvement when the Board determines the need thereof."). Moreover, Mississippi's remedial plan ordered several "institutional studies" be performed to determine what further "programmatic expansion" would provide the HBIs with "meaningful programmatic uniqueness…which would bring about significant white enrollment." *Id.* No specific levels of funding were pre-committed to any recommended program expansion that would result from these studies. The decree simply stated that "the results of [the studies] will be presented to the

Monitoring Committee...for its review and submission of its recommendation to the [C]ourt." *Id.*[5]

In summary, based on the above legal framework, the Court's first step should be to determine whether the Defendants have met their burden to come forward with a plan that will remedy the constitutional violation found. For the reasons set forth below in Section III, the Court finds the State has failed to do so. The Court will thus proceed in Sections IV-VII to evaluate Plaintiffs' remedial proposal and the other evidence received at trial to arrive at a plan that has the potential to achieve the greatest possible reduction in segregative effects in a manner that is educationally sound and practicable.

III. THE STATE'S PROPOSAL IS AN INADEQUATE REMEDY AS THE COURT HAS ALREADY FOUND.

As already discussed, the State has the initial legal burden of demonstrating that its proposed plan has a realistic chance of remedying the constitutional violation of unnecessary program duplication. Not only has the State failed to its meet its burden but it has not even made a good faith effort to propose a plan that has a realistic chance of remedying the constitutional violation.

Here, the State has failed to meet its burden of proposing a viable remedy. (*See* 2016 Order at 2 (rejecting State's proposal).) The Court has provided ample opportunity for Defendants to come forward with an effective remedy. In light of the State's deliberate failure to do so, this Court's task is to devise appropriate remedies to eliminate the dual system that continues to exist in Maryland. Where, as here, the state fails to meet its burden to propose an effective remedy, the Court enjoys broad discretion to remediate the condition which offends the

[5] As it turned out, the parties entered into a settlement prior to any such submission taking place.

Constitution (in this case unnecessary program duplication and the effects that flow from that policy).

In May 2014, the parties submitted a Joint Status Report regarding the status of mediation efforts. (Doc. No. 394.) Plaintiffs stated that the positions of the parties as to how to remedy the constitutionality were "too large to bridge in the short and medium term" and asked to have the court enter a scheduling order for litigating the remedial stage of the action concurrent with current mediation discussions. (*Id.* at 1-2.) In their statement, the State opposed setting forth a litigation schedule for the remedy. The State disagreed "with the Plaintiffs' suggestion that there is an unbridgeable gap between the parties' proposals" and stated that there were "significant areas of overlap" between the parties' proposals. (*Id.* at 3.)

Plaintiffs submitted their initial remedial proposal in May 2015. (Doc. No. 406.) In an October 2015 conference call with the Court to discuss Defendants' submissions and scheduling related to the remedial hearing, the State signaled that it might not submit a remedial proposal at all, previewing its strategy -- to present arguments as to *whether* remedies were appropriate rather than presenting a serious remedy proposal. (*See* Doc. No. 442.) After the Court indicated that it expected remedial proposals rather than simply argument about *whether* remedies were appropriate, Defendants submitted a remedial proposal of less than ten pages on November 20, 2015. (PRX 29.)

The State's proposal contained two components. The first component is what the state describes as the Fund for Collaborative Academic Programs ("FCAP"), a six-year initiative to support the development of new collaborative programs" between HBIs and TWIs." (*Id.* at 3.) The state represented that "FCAP could have the capacity to distribute as much as $10,000,000 in grants over the six-year life of the initiative." (*Id.*) Under the proposal, HBIs and TWIs

would jointly apply and each applying institution would receive the funds. (*Id.* at 4-5.) The proposal provides several examples of potential collaborations. (*Id.* at 5-6.) Proposals would be vetted by a committee "appointed by each of the Presidents" from each TWI and HBI. (*Id.* at 7.)

The second component is what the state calls the "Governor's Early College Summer Academy Program at each of the HBIs." (*Id.*) This program would involve a four-to-six week summer residential program for rising 11th and 12th grade students and students would receive "three to six academic credits transferrable to any Maryland public institution." (*Id.*) The proposal states that "[t]he Academies would be tuition-free and supported by State expenditures estimated at between $500,000 and $1,000,000 per institution per year, during a proposed four-year period." (*Id.* at 8.) The proposal contains potential ideas for academies at each of the HBIs. (*Id.* at 8-9.)

Almost a year before the trial, the Court rejected the State's proposal as inadequate: "[F]rom a review of the record already before me, it is clear that the defendants' remedial proposals are neither adequate nor sufficiently specific, although collaborative programs are indeed helpful in certain circumstances." (2016 Order at 2.) Nonetheless, the State did not attempt to modify the November 2015 proposal prior to trial. On the third day of trial, after Defendants' counsel asked questions of the HBI Presidents related to letting the HBIs have flexibility over spending funds, the Court asked defense counsel whether the State would be putting forward a new proposal. (1/11/17 PM Trial Tr. at 101.) Counsel responded by stating that "I would like to be able to tell you that there will be something that will elaborate on some of the questions we've asked. We don't at the present time have authority to do that." (*Id.* at 102.) During the trial, the State never put forward a proposal other than the November 2015 proposal.

The proposal does not represent a legitimate effort on behalf of the Defendants to remedy the constitutional violation previously found. The proposal was created by the State attorneys in consultation with two University System of Maryland officials. (1/12/17 PM Trial Tr. at 22-23 (Fielder); PRX 327 at 3.) In response to an interrogatory, the State identified six individuals who were involved in the creation of the proposal: Theresa Hollander; Joann Boughman; Steven M. Sullivan; Katherine Doyle Bainbridge; Jennifer A. DeRose; and Elizabeth F. Harris. (PRX 327 at 3.) Mr. Sullivan and Mses. Bainbridge, DeRose and Harris are lawyers for the State. (1/12/17 PM Trial Tr. at 23-24 (Fielder).) Ms. Hollander is the Associate Vice Chancellor of Academic Affairs and Ms. Boughman is the Senior Vice Chancellor for Academic Affairs and Ms. Hollander's supervisor. (1/12/17 PM Trial Tr. at 23 (Fielder).) *None* of the six people who were involved in the creation of the proposal testified at trial. In her deposition, portions of which the parties stipulated to as part of the record, Ms. Hollander testified that her role and that of Ms. Boughman was to provide examples of programs for the proposal. Ms. Hollander had not seen the actual proposal prior to her deposition. (10/6/16 Dep. Desig. at 84 (Hollander).) Secretary Fielder acknowledged that the plan was prepared by the State's lawyers. (1/12/17 PM Trial Tr. at 22-23 (Fielder).)

Several key stakeholders played *no role* whatsoever in the development of the State's proposal. MHEC had no involvement in the creation of the State's proposal (PRX 30 at 3; 1/12/17 PM Trial Tr. at 35-36 (Fielder); 1/10/17 PM Trial Tr. at 3 (Bell)), even though it is the lead State defendant in this case, and the entity charged under state law to "coordinate the overall growth and development of postsecondary education in the State," including ensuring that the "State Plan for Higher Education complies with the State's equal educational opportunity obligations under State and federal law, including Title VI of the Civil Rights Act." Md. Code

Ann., Educ. §§ 11-105(b)(1), (3). The four HBI Presidents also testified that their institutions did not have *any* involvement in the creation of the State's proposal. (PRX1; 1/9/17 PM Trial Tr. at 46 (Wilson); 1/10/17 PM Trial Tr. at 3 (Bell); 1/11/17 AM Trial Tr. at 16-17 (Burnim); 1/11/17 PM Trial Tr. at 65-66 (Thompson).) In addition, several TWI Presidents testified that they did not have any input in the state's proposal and were not otherwise asked for thoughts on remedy. (1/30/17 Trial Tr. at 120 (Hrabowski); 2/1/17 Trial Tr. at 53 (Schatzel); 2/9/17 Trial Tr. at 24-27 (Schmoke) (presidents of UMBC, Towson, and UB respectively).)

The four HBI Presidents were highly critical of the State's proposal. Dr. David Wilson, President of Morgan State University, described the proposal as an "embarrassment" and characterized it as "woefully inadequate." (1/9/17 PM Trial Tr. at 46 (Wilson).) The three other HBI Presidents – Dr. Juliette Bell, President of University of Maryland Eastern Shore, Dr. Mickey Burnim, President of Bowie State University, and Dr. Evelyn Maria Thompson, President of Coppin State University – took the rare step of jointly authoring an editorial in the Baltimore Sun about the State's proposal entitled "Md. HBI Remedy Lacking." (PRX 1; 1/10/17 PM Trial Tr. at 4 (Bell); 1/11/17 AM Trial Tr. at 14-15 (Burnim); 1/11/17 PM Trial Tr. at 65-66 (Thompson).) In the editorial, the Presidents described the State's proposal as "disappointing" and "disheartening." (PRX 1 at 1.)

The HBI Presidents' trial testimony elaborates why each of them found the State's proposal lacking. Regarding the summer program proposal, Dr. Wilson testified that he had extensive experience with summer programs at various univerisites and there was "zero evidence" that such programs would attract white students to the HBIs. (*Id.* at 46-47.) With respect to the collaborative programs, Dr. Wilson testified that they would do little to desegregate the HBIs because of the existing inequities between the schools. (*Id.* at 46.) Dr.

Bell testified that the State's summer program proposal would have a marginal impact at best because because having prospective students spend time on campus in the summer in most instances will not overcome UMES's competitive disadvantages in terms of scholarships and facilities. (1/10/17 PM Trial Tr. at 28-30 (Bell).) Dr. Bell also testified that UMES's experiences with joint programs have been mixed – they have tended to work better when UMES had equivalent capacity compared to partner TWIs in terms of facilities, scholarship dollars, faculty and support structures as it pertains to the joint program. (*Id.* at 24-28.) Moreover, she stated that the State's specific proposal related to joint programs was "nominal because the amount of funding that was provided to support those joint programs was relatively small for the number of institutions involved and the potential number of colloborations that could be generated as a result." (*Id.* at 10.) Dr. Burnim testified that based on his experience, the components of the State's proposal would not do anything to attract "students we did not traditionally attract to start with" and "that the level of funding for them was such that it would not have much impact at all." (1/11/17 AM Trial Tr. at 18-19 (Burnim).) Finally, Dr. Thompson testified that she did not understand the State's "proposed remedy in relationship to the lawsuit." (1/11/17 PM Trial Tr. at 66 (Thompson).) To that end, she testified that she did not see the "connection between summer programs and increasing diversity" and that the demographics of the students participating in the summer reflects that of the student body. (*Id.* at 68-69.) The testimony of the four current HBI Presidents was corroborated by the testimony of Dr. Earl Richardson, who was President of Morgan State University from 1984 to 2010. (1/17/17 AM Trial Tr. at 12 (Richardson).) Dr. Richardson testified that joint programs might work in a "complementary system of higher education," a system "where there is not the duplication between the various institutions" and "each has a strength." (*Id.* at 56.) He said that the

Maryland does not have such a complementary system. He further testified that he knows of a dozen or so designated or proposed collaborative programs among Morgan, Towson, UMBC, and the University or Baltimore and that he did not "know a single one of them that has contributed one iota to desegregation." (*Id.* at 56-57.)

In addition, Plaintiffs' expert, Clifton Conrad, testified that both components of the State's proposal could be supplemental components of an effective remedial plan, but that they were insufficient as centerpieces of a proposal because they will not, in and of themselves, desegregate the system. (1/24/17 AM Trial Tr. at 116-19 (Conrad).) He testified that there is no evidence that summer academies affect enrollment at HBIs and that joint programs "don't ultimately desegregate in a meaningful way and differentiate one program from one another." (*Id.*)

Recognizing the weakness of its proposal, the State made a half-hearted effort at best to advance and defend the proposal. When asked by the Court during opening statements as to how the State would advance and explain the proposal and discuss its creation, the State acknowledged that the evidence supporting the potential efficacy of the State's proposal was "slim." (1/9/17 AM Trial Tr. at 91.) The State identified Dr. James Fielder, the current Secretary of MHEC, as the person who would testify about how the proposed would be rolled out. (*Id.*) It was telling that nobody from the State testified about the how the proposal was actually created. Dr. Fielder testified that MHEC is responsible for the state higher education desegregation's efforts, including implementing a plan to eliminate the vestiges of discrimination of Maryland's system of higher education system and monitoring the progress of the state's efforts to discriminate. (1/12/17 PM Trial Tr. at 10 (Fielder).) He further testified that the State's proposal was submitted to the Court before Dr. Fielder became Secretary of MHEC and

he played no role in crafting the proposal. (*Id.* at 20, 22.) Because of this, he did not have personal knowledge as to how the State's program was created but was aware that nobody at MHEC was involved in the creation of the State's proposal. (PRX 30 at 3; 1/12/17 PM Trial Tr. at 35-36 (Fielder).) Dr. Fielder did not provide any testimony as to how the State's proposal would serve to desegregate the HBIs or attract more white students to the HBIs.

Dr. Fielder's testimony made clear that the State has not acted to implement its own remedial proposal. At the time of his deposition, Dr. Fielder had not conducted any meetings with any of the HBI Presidents concerning the State's proposal. (1/12/17 PM Trial Tr. at 26 (Fielder).) He also testified that at the time of his deposition that he had no knowledge as to how the collaborative program component of the proposal worked and had not had any discussions with anybody about it. (*Id.* at 33-35.) After his deposition but before trial, Dr. Fielder did meet with each HBI President to discuss the State's remedial proposal. (*Id.* at 26-27.) Dr. Fielder acknowledged that that the HBI Presidents individually and collectively found the State's proposal unacceptable. (*Id.* at 27-31, 36.) He did not discuss the Plaintiffs' proposal or the HBIs' proposals during the meetings. (*Id.* at 47-52.) Other than meeting with the HBI presidents once, Dr. Fielder did not do any follow up with any of the Presidents regarding the State's remedial proposal or any other remedial alternative. (*Id.* at 31.)

In contrast to the extensive analysis the State's experts provided in arguing against the potential efficacy of the Plaintiffs' remedial proposal, the State's experts did not have *any* input into the State's remedial proposal, nor were they asked by the State to analyze its potential efficacy. Indeed, each testified that the first time they had the opportunity to review the State's proposal was at their depositions. (2/14/17 Trial Tr. at 117-18 (Lichtman); 2/15/17 Trial Tr. at 91 (Bastedo); 2/8/17 Trial Tr. at 186-87 (Manning).) Defendants' main expert, Dr. Allan

Lichtman, testified that he did not see any scientific analysis that supported the validity of the State's proposal as a remedial plan. (2/14/17 Trial Tr. at 118-20 (Lichtman).) Similarly, defense expert Dr. Michael Bastedo testified that he was not aware of any research or analysis that supported a conclusion that the two items in the State's remedial proposal offered any segregative potential. (2/15/17 Trial Tr. at 91-92 (Bastedo).) Neither expert was asked by the State to develop a remedial plan. (2/13/17 Trial Tr. at 166-67 (Lichtman); 2/15/17 Trial Tr. at 96 (Bastedo).)

There is some data in the State's responses to Plaintiffs' Interrogatories on summer academies and joint and collaborative programs that is germane to whether the State's proposal may have a desegregative effect, and that data does not support the efficacy of the State's proposal. In Interrogatory No. 18, Plaintiffs asked for demographic data regarding the participants in summer programs at the HBIs for the last fifteen years. (PRX 328 at 77.) In the summer program at Coppin State (called Pre-College Summer from 2005-09 and the Summer Academic Success Academy from 2010-16), 29 white students participated out of 1468 total participants. (PRX 329 at 31-32.) Morgan has had four summer programs, with racial data available for three of those programs for certain years. For Morgan's Pre-Freshman Accelerated Curriculum in Engineering, none of 394 participants from 2005 to 2016 were white. (PRX 328 at 77-78.) In the Summer Academy of Mathematics and Science, 1 of the 100 participants from 2014-16 was white. (*Id*. at 78-79.) In the Upward Bound Program, 8 of the 1,558 participants from 2001-16 were white. (*Id*. at 79-80.) With respect to Bowie's summer programs, the State did not provide data by race but acknowledged that "the racial composition of both summer programs has been overwhelmingly African American." (*Id.* at 30-31.) The State did not provide any information regarding summer programs at UMES. As a result, the data shows that

the existing summer programs at the HBIs have attracted few white students. The State has offered no explanation as to how the summer programs in its proposal would attract white students to a degree that the existing programs have not and that those students would subsequently enroll at the HBIs.

The Plaintiffs also propounded an interrogatory asking for information regarding existing collaborative programs, including the racial demographics of the students in those programs. (PRX 326 at 7.) The State provided a list of collaborative programs in its supplemental responses and the total number of students in those programs but not a racial breakdown. There are no joint programs listed for Bowie; Coppin has one program listed with a total enrollment of 40; Morgan has two programs listed with an enrollment of 34 total students; and UMES has six programs listed with an enrollment of 63 students. (*Id.* at 7-10.) Given that the total enrollment of the existing programs is barely more than 100 students, the current record does not suggest that joint programs should be a central part of the proposal. Moreover, Defendants did not provide any evidence demonstrating that joint or collaborative programs would work as a central component in the remedy.

Based on the foregoing, the State's proposal was not offered in good faith – in creating the proposal, it did not include the input of MHEC, the State agency with the responsibility of leading the State's higher education segregation, let alone the HBIs and TWIs. The State did not produce any witness who testified as to how the plan was created. Furthermore, given the extremely substantial differences between the Plaintiffs' remedial proposal (which is discussed in greater detail below) and the State's remedial proposal, the State's May 2014 statement to this Court that there was substantial overlap between Plaintiffs' proposal and the State's proposal was a clear misrepresentation intended to delay the remedial component of these proceedings.

In addition, the State not only failed to provide any evidence to show that there is a realistic possibility its remedial proposal might segregate the HBIs, but it did not even try to do so. Dr. Fielder, the witness who the State represented would explain the State's proposal, did not testify *at all* as to how it would desegregate the HBIs. Moreover, despite the State's position that the efficacy of a remedial plan has to be established through expert testimony (*see* Doc. No. 495 at 1), the State did not include its experts' input in devising its proposal, the State did not have its experts analyze the potential efficacy of the proposal, and on cross-examination, the State's experts acknowledged that they were not aware of *any* analysis that supported the desegregative potential of the State's plan. As a result, the State has failed to meet its burden of demonstrating that its plan has a realistic chance of remedying the constitutional violation.

IV. PLAINTIFFS' REMEDIAL STRATEGY TO DISMANTLE THE DUAL SYSTEM IS SOUND AND SUPPORTED BY THE EVIDENCE.

The remedial decree in this case should address the programmatic imbalance between the TWIs and the HBIs perpetuated by unnecessary duplication. A successful remedy should address the systemic disparities reflected by the overall imbalance associated with the limited missions and unnecessary duplication of programs at the HBIs. This Court has found that a dual system of higher education is one in which there is "a substantial amount of unnecessary or non-essential program duplication" between the TWIs and HBIs and "there is not meaningful program uniqueness at both sets of institutions." (2013 Op. at 47.) The remedy here must therefore address the persistent programmatic imbalance between the TWIs and HBIs at the statewide and regional level. In so doing, the Court must also prevent future imbalances.

Plaintiffs' remedial proposal offers a set of strategies to dismantle Maryland's dual system of higher education by establishing distinctive institutional identities as outlined below. These strategies are responsive to this Court's orders, informed by history, consistent with past

efforts to desegregate systems of higher education, and consistent with Maryland's own data. More importantly, these recommendations are substantially similar to those submitted by the HBIs.

A. Desegregation Requires the HBIs to Possess Distinct Institutional Identities.

In a unitary system of higher education, the HBIs must have academic identities anchored in a meaningful number of unique, high-demand programs – as well as programs that are either unique or high-demand – offered within distinctive programmatic niches. (PRX 312 at 7 ¶ 39.) Plaintiffs' proposed remedial strategy is specifically tailored to address the underlying violation of unnecessary program duplication consistent with this Court's prior opinion, which anticipates that an effective remedy will create "program uniqueness and institutional identity at the HBIs." (2013 Op. at 59.)

An effective remedy must therefore ensure that each HBI fulfills a distinctive role within the State's system of higher education. (PRX 312 at 7 ¶ 40, 27 ¶ 158.) This will increase educational opportunities for all students; increase the excellence, reputation and prestige of academic programs at Maryland's public institutions and its system of higher education; establish institutional identities at the HBIs which empower them to compete for students of all races; and achieve better, more efficient, and effective use of economic resources. (*Id.* at 10 ¶ 53.)

Plaintiffs recommend three overarching strategies to dismantle the dual system. *First*, and foremost, Maryland must create distinct institutional identities at the HBIs by establishing a meaningful number of programmatic niches which include a combination of unique, high-demand programs sufficient to attract significant levels of other-race students. *Second*, the State must enhance the quality and capacity of current program offerings at the HBIs to anchor the proposed niches. *Finally*, the State must revise its program approval process to address both

current and future duplication. (PRX 312 at 9 ¶ 49; 1/18/17 AM Trial Tr. at 78-79 (Allen); 1/24/17 Trial Tr. at 23 (Conrad).)

This Court must determine what interventions are most likely to desegregate the HBIs and why. (PRX 312 at 15 ¶ 84.) A variety of factors influence student choice. (*Id.* at 15 ¶ 81.) These include institutional prestige (including its status as a flagship), other-race scholarships, low tuition and fees, inclusive campus culture and positive image as a multiracial institution, active recruitment of other-race students, a safe learning environment, and positive relationships with the external community and professional constituencies. (*Id.* at 9 ¶ 48.)

An educationally sound and practicable strategy to address unnecessary program duplication will account for these considerations while maximizing the extent to which each contributes to distinctive institutional identity. (*Id.* at 9 ¶¶ 48-49 and 28 ¶ 176.) It must also take into account the institutional mission, capacity and competitive disadvantage of each individual institution. (1/24/17 Trial Tr. at 64-65 (Conrad).)

B. Unique and/or High-Demand Programs Offer Desegregative Potential.

Unnecessarily duplicative or broadly similar programs may influence student choice to the detriment of the HBIs. Program uniqueness offers desegregative potential because it "reduces the competition" for students. (*Id.* at 43-44, 52-53.) When institutions offer "distinctive, high-quality academic programs" then their appeal is "universal." (1/18/17 PM Trial Tr. at 13, 78 (Allen).) On the other hand, unnecessary program duplication "decreases the likelihood that white students will cross the racial divide and go to an HB[I]." (1/24/17 Trial Tr. at 44 (Conrad).)

Unique programs are those which are unduplicated by broadly similar programs at other-race institutions with overlapping service areas. (PRX 312 at 19-20 ¶ 113.) Overlapping service areas are those in which institutions with similar missions and programs aim to serve the same

set of students. (*Id.* at 19 ¶ 111; 1/24/17 Trial Tr. at 53 (Conrad).) Because program uniqueness exists on a continuum, it is important to analyze desegregative potential at both the statewide and regional levels. (1/18/17 AM Trial Tr. at 92-93 (Allen).) A statewide comparison is "especially important" because a dual system exists at the state level. (1/24/17 Trial Tr. at 56 (Conrad).) At the same time, it is also important to evaluate proximate uniqueness within overlapping service areas where institutions seek to recruit the same students. (*Id.*)

Consequently, an analysis of desegregative potential must also account for the fact that the University of Maryland College Park ("UMCP") plays a specific role within Maryland's system of higher education and enjoys a unique competitive advantage as the most selective institution in the state. (1/1817 AM Trial Tr. at 91 (Allen).) Students denied admission to the flagship may still elect to attend a duplicative program offered at the HBI in order to earn that degree. HBI programs which are only duplicated by the flagship may therefore still have the capacity to attract students of all races. (PRX 312 at 22 ¶ 124; 1/18/17 AM at 91-92, 95 (Allen).) "[T]he data had shown us that even in those instances where an HBI duplicates a program at the flagship, if the HBI program is the only other program available, then it still has desegregative potential and is still able to attract those white students who weren't able to get into the flagship program." (2/21/17 Trial Tr. at 95 (Allen).)

Similarly, online programs are relevant to an assessment of duplication and desegregative potential because "they are an important part of the landscape in higher education" and to the extent that they offer degrees that attract students they contribute to duplication and its segregative effects. (1/24/17 Trial Tr. at 58 (Conrad); 1/18/17 PM Trial Tr. at 28-30 (Allen).) Consequently, because online education is a "new, evolving and very powerful space" it is important to address competition by online programs. (1/18/17 PM Trial Tr. at 82-83 (Allen).)

High-demand programs also offer desegregative potential because "high-demand programs attract students," and those programs tend to reflect those that generate career opportunities. (1/24/17 Trial Tr. at 45 (Conrad).) High-demand programs are those that are expected to attract and graduate significant numbers of students for the foreseeable future, and are often at the "epicenter" of institutional identity. (PRX 312 at 20 ¶ 116.) On the other hand, low-demand programs will not generate the volume of students sufficient to alter the racial identifiability of an institution even if they are unique and therefore offer more limited desegregative potential.

Demand also exists on a continuum, and in designing a remedial proposal it is essential to identify those programs which will attract sufficient numbers of white students to contribute to significant and sustained increases in other-race enrollment at the HBIs. (1/24/17 Trial Tr. at 45 (Conrad).) Because some programs are so high-demand that they may draw significant levels of white enrollment even when duplicated, Dr. Conrad and Dr. Allen identified those as "exceptionally high-demand programs." (PRX 312 at 20-21 ¶ 117.)[6]

Research shows that of the various factors which influence student choice, unique and high-demand programs offer the most desegregative potential because they can markedly contribute to institutional identity, particularly when those programs are clustered around programmatic niches. (*Id.* at 7 ¶ 39.) Both program uniqueness and demand matter because "those two traits and characteristics reinforce one another, and they both matter in terms of creating the kind of academic programming that will attract students." (1/18/17 PM Trial Tr. at 14 (Allen).)

[6] Plaintiffs may use the terms "exceptionally" or "extremely" high demand interchangeably in this regard.

1. Data confirms the desegregative potential of unique and high-demand programs.

As a starting point, an updated analysis of Maryland's data demonstrates that the State's HBIs continue to be highly segregated and lack meaningful programmatic uniqueness. White enrollment at the four HBIs is approximately 5.4% of the overall enrollment. (PRX 312 at 13 ¶ 9.) In fall 2014, Bowie had 3.5% white enrollment, Coppin had 1.4% white enrollment, UMES had 14.5% white enrollment, and Morgan had 3.3% white enrollment. (PRX 330 at 14-15.) In addition, on average the TWIs have 56.6 statewide unique programs and 24.4 programs statewide that are both unique and high-demand, while the HBIs have an average of 15 statewide unique programs and only 2.5 of those are both unique and high-demand. (PRX 312 at 23 ¶ 130.) In other words, the TWIs continue to "dominate the narrative" in terms of academic programs. (1/24/17 Trial Tr. at 61 (Conrad).)

Dr. Conrad and Dr. Allen therefore concluded that Maryland's HBIs continue to be racially identifiable and lack an academic identity separate and apart from race, and that the HBIs (both individually and collectively) have far fewer areas of concentration or unique, high-demand programs when compared to the TWIs. (PRX 312 at 34 ¶ 207.) Consequently, these disparities and their segregative effects undermine the ability of the HBIs to cultivate a distinct academic identity. (*Id.* at 23 ¶ 132.) From a remedial perspective, the challenge created by the overall program imbalance in Maryland is that it becomes very difficult to identify new unique and/or high-demand programs that can be developed and implemented at the HBIs.

More importantly, a comprehensive analysis of Maryland data confirms that unique, high-demand programs offer desegregative potential and may be highly effective in generating white student enrollment at the HBIs, particularly when those institutions offer non-core programs which are both unique *and* high-demand. (*Id.* at 35 ¶ 210.) Dr. Conrad and Dr. Allen

analyzed 2014 enrollment disaggregated by program and race to assess the extent to which certain programs are likely to attract white students. (*Id.* at 35 ¶ 214.) They determined that while there are few students attending HBIs, they tend to be enrolled in programs that are unique and/or high-demand, or only duplicated by UMCP. (1/24/17 Trial Tr. at 63 (Conrad).)

The ability to analyze student choice in Maryland is limited by the low overall white enrollment at both the institutional and program level at all four of the HBIs. (PRX 312 at 35 ¶ 214.) Dr. Conrad and Dr. Allen utilized a variety of benchmarks and criteria to assess whether unique and high-demand programs might influence student choice and prove attractive to students of all races. Using fall 2014 enrollment data, they determined that only 34 or 14.5% of the 235 programs currently offered at all four HBIs enroll at least ten white students. (*Id.* at 218 Exhibit 6.) Of those, 31 are either proximately unique or high-demand, 16 are unique and 25 are high-demand. In addition, 10 of those programs are both unique *and* high-demand.

With respect to the small number of programs that enroll at least ten white students, 91.2% are either unique *or* high-demand, 47.1% are unique and 73.5% are high-demand. More importantly, 29.4% are *both* unique and high-demand. (*Id.* at 36 ¶ 215, 218 Exhibit 6.) The only three programs within this subset which are neither unique nor high-demand are core, joint, or only duplicated by UMCP. (*Id.* at 218 Exhibit 6.) Core programs may draw high enrollment but offer limited desegregative potential as they are offered at most four-year universities. (*Id.* at 19 ¶ 112.) Joint programs do not enhance distinctive institutional identities. (1/24/17 Trial Tr. at 117 (Conrad).) And programs which are duplicated by the flagship do offer some desegregative potential. (PRX 312 at 31 ¶ 187.)

From that subset of 34 programs, Dr. Lichtman isolated those offered at the three institutions in the Baltimore/Prince George's County region and concluded that these programs

do not offer desegregative potential because white students comprise only 6% of the students in these programs collectively, which is only 3 percentage points higher than the percentage of total white enrollment for the three HBIs overall. (Second Expert Report of Dr. Allan Lichtman, DRE 98 at 57-58 Table 19.) Dr. Lichtman asserts that none of the Baltimore area programs enrolling at least 10 or more white is unique or high-demand, and he therefore concludes that the programs that Plaintiffs assert are enrolling greater numbers of white students are duplicated rather than unique. (DRE 98 at 57.)

However, of the five HBI programs identified by Dr. Lichtman as enrolling the highest number of white students in the Baltimore region, four are duplicated only by College Park and the doctorate in Community College Leadership at Morgan is only duplicated by UMUC and UMUC is restricted to offering that online degree to out-of-state residents. (PRX 353; PRX 312 at 218 Exhibit 6; DRE 98 at 58, Table 19; 2/6/17 Trial Tr. at 66-67 (Miyares).)[7] Of the five HBI programs enrolling the highest number of white students in that area, four are only duplicated by UMCP and the other's ability to compete with the HBI has been constricted by MHEC. In fact, this is entirely consistent with Plaintiffs' remedial strategy, which accounts for the desegregative potential of programs which are only duplicated by the flagship, and the fact that competition presented by UMUC's massive online presence must be managed.

Dr. Conrad and Dr. Allen also identified programs at all four HBIs with at least 15 white students and 15% white enrollment. (PRX 312 at 220, Exhibit 8.) These criteria were selected

[7] "UMUC" refers to the University of Maryland University College. The programs which are enrolling the highest number of white students in the Baltimore area are the master's in Landscape Architecture at Morgan; the master's in Architecture at Morgan; the Master's in School Counseling at Bowie; the bachelor's in Nutritional Science at Morgan; the bachelor's in Architecture & Environmental Design at Morgan; and the doctorate in Community College Leadership at Morgan. (DRE 98 at 58 Table 19.) According to the updated 2016 Program Inventory prepared by Dr. Conrad, the first four programs are duplicated only by UMCP and as stated above the doctorate in Community College Leadership is only offered by UMUC to out of state students. (PRX 353.)

to analyze which programs at HBIs are likely to attract students of all races using a variety of metrics, but once again reflect the low white enrollment at both the institutional and program level. (*Id.* at 36 ¶ 217, 220 Exhibit 8.) Only ten programs met these criteria, or 4.3% of the total number of programs at all four HBIs. All are offered at either UMES or Morgan, and five were at the graduate level. (*Id.* at 36-37 ¶ 218, 220 Exhibit 8.) Of those ten programs, eight or 80% are proximately unique and another two are only duplicated by the flagship. In other words, essentially all of those programs are *either* proximately unique or duplicated only by UMCP and five of those or 50% are *both* unique and high-demand. (*Id.* at 37 ¶ 219, 220 Exhibit 8.)

This is consistent with Plaintiffs' general remedial theory that program uniqueness and demand (alone but also combined) can contribute to and are associated with racial diversity. (*Id.* at 36 ¶ 215, 37 ¶ 219.) The data show that the distribution of white students across academic programs at the HBIs is not a "random phenomenon" -- rather, those white students are drawn to unique and high-demand programs. (1/19/17 AM Trial Tr. at 23 (Allen).) In spite of the fact that there are extremely few students currently enrolled at the HBIs, individually as well as collectively, the analysis confirms that unique, high-demand programs account for a "markedly higher white enrollment." (*Id.* at 37-38.)

In an effort to understand the extent to which unique, high-demand programs might offer desegregative potential, Dr. Conrad and Dr. Allen then engaged in a disproportionality analysis to determine whether unique, high-demand programs might attract more white students than expected. (1/18/17 AM Trial Tr. at 18, 27 (Allen).) The 22 programs at all four HBIs which are *both* proximately unique and high-demand represent only 9.4% of the 235 programs at all four of the HBIs yet enroll 27.1% of the white students at the HBIs. These programs are 2.9 times as

likely to attract white students, a yield of nearly three to one in terms of the overrepresentation of white students. (PRX 312 at 37 ¶ 220, 219 Exhibit 7.)

Dr. Allen also analyzed disproportionality of high-demand programs by degree level in order to get a "concrete and empirical assessment of the return of such programs, the bang for the buck, if you will, the degree to which they over perform" in terms of attracting white students. (2/21/17 Trial Tr. at 91-92 (Allen).) This demonstrated that graduate programs offer an impressive "bump" in desegregative potential, in that doctoral programs are 3.5 times more likely to attract white students. (*Id.* at 92.) This reinforced Dr. Conrad's national study which confirmed that master's programs can contribute to institutional identity, particularly for comprehensive universities such as Bowie. "Students are drawn very much to those kinds of [graduate] programs." (1/24/17 Trial Tr. at 65-66 (Conrad).)

Quantitative analysis may therefore be informative in terms of understanding the types of programs which offer desegregative potential. However, it cannot prove or disprove the efficacy of Plaintiffs' proposed remedial strategy. "[Q]uantitative tests assume" that a plan is in place and the available data is reflective of the segregated system currently in place. (2/21/17 Trial Tr. at 32 (Allen).) In other desegregation cases, courts have not deferred the implementation of a remedy until its efficacy had been fully "tested." (*Id.* at 33-34.) Even so, based on their qualitative and quantitative analysis of Maryland, research and extensive expertise in higher education desegregation, Dr. Conrad and Dr. Allen "anticipate that a meaningful level of desegregation will be produced by clustering unique, high-demand programs within distinct programmatic niches." (PRX 312 at 34 ¶ 204.)

Because this promising strategy has never been fully implemented in any state, data is not yet unavailable to measure its success in contributing to significant and sustained increases in

white enrollment at the HBIs. (*Id.*) It is not possible to measure with any degree of certainty the extent to which any one factor is responsible for influencing student choice. (*Id.* at 34 ¶ 206.) Instead, Dr. Conrad and Dr. Allen evaluated the factors that *currently* account for the desegregative potential of various programs and niches – as well as what might potentially influence the decision to enroll in a particular program in the *future* – in reaching their findings and opinions.

UMES offers some important insights in this respect. For UMES, its geographic competitor for students is Salisbury and by virtue of its history and its location it has been able to carve out unique, high-demand programmatic areas which have greatly contributed to the higher number of white students on its campus. (1/23/17 Trial Tr. at 102-03 (Allen).) Contrary to the State's arguments that demographics account for the high white enrollment at that campus, the data confirm that the programs drive white enrollment. (2/21/17 Trial Tr. at 116-17 (Allen); 1/10/17 PM Trial Tr. at 22-23 (Bell).) In fact, eight of the ten programs that enrolled at least 15 white students and had 15% white enrollment in fall 2014 were offered by UMES, and all were proximately unique, three were unique to the entire state, four were exceptionally high-demand, and another was high demand. (PRX 312 at 220 Exhibit 8.)

In fact, the experience of UMES's graduate programs demonstrates how a cohort of unique programs can drive high white enrollments. Of the twenty graduate programs offered at UMES in fall 2014, fifteen are proximately unique and five are joint. None are duplicated. The data show that 90% (629 of 692) of graduate students at UMES are enrolled in proximately unique programs, and the remaining 10% of the graduate students are in the joint programs.[8]

[8] As noted below, joint and collaborative programs offer some – but limited – desegregative potential. This means that because both unique and joint programs may attract students of all races, all of the graduate students at UMES are in programs that Plaintiffs suggest offer some desegregative potential.

More than 28% of the total number of the UMES graduate students in those programs are white, a percentage that is almost double the percentage of total white enrollment at UMES and more than five times the white percentage of students at the HBIs overall. (PRX 498; 2/16/17 Trial Tr. at 14-16 (Lichtman); PRX 330 at 14-15).) Consequently, an HBI's ability to offer a meaningful number of unique graduate level programs offers meaningful desegregative potential and Plaintiffs recommend that each academic niche include a core of graduate programs.

2. The record establishes the desegregative potential of unique and high-demand programs.

Courts have held that "well-planned programs that respond to the particular needs and interests of local populations can help to desegregate historically black institutions…[P]rograms not duplicated at proximate institutions targeted to local demands, and in many cases offered through alternative delivery systems (such as off-campus, evening or weekend programs) have had success in attracting white students to historically black institutions in other states." *See Ayers*, 111 F.3d at 1213-14.

This is confirmed by other evidence in the record. Dr. Earl Richardson testified that based on his experience considering what might attract other-race students to HBIs, "academic programs are key." According to Dr. Richardson, "[Y]ou can't talk recruiting, you can't talk fellowship, scholarships or anything else if you don't have that program" and if that program is not unique and high-demand, the likelihood of attracting sufficient numbers of other-race students is "bleak." (1/17/17 AM Trial Tr. at 18 (Richardson).)

The State, through its own documents and witnesses, has recognized the relevance of institutional identity to an HBIs' ability to compete for students of all races. At the liability trial, the State's own expert, Dr. Donald Hossler, conceded that it may be a challenge for the HBIs to attract other-race students because comparability and competitiveness may influence student

choice. (2/6/12 Trial Tr. at 53, 56 (Hossler).) He testified that the number of non-duplicated programs offered by an institution is relevant to its ability to attract students. (*Id.* at 63.)

At the remedial trial, Dr. David Wilson, President of Morgan, testified that "if indeed the nation were serious about desegregating its public Historically Black Colleges and Universities . . . it could best do that by implementing on those campuses and instituting on those campuses unique, high-demand programs that would not be duplicated by Traditionally White Institutions nearby." (1/9/17 PM Trial Tr. at 16 (Wilson).) The HBIs must have "a high quality, unique program that is not offered down the street" such that students have the option at other institutions "rooted in the traditionally white college space." (*Id.* at 21.)

Based on her own experience as President of UMES, Dr. Juliette Bell testified that "students attend our institutions because they have interests in particular programs" and that data shows that "academic programs are a major draw for our students to come to our institutions." (1/10/17 PM Trial Tr. at 21 (Bell).) While not the only reason, UMES has been able to determine that "one of the reasons that students choose not to come is that we may not have the academic program that they are seeking." (*Id.*)

Dr. Bell confirmed that the data also shows that much of the diversity at UMES may be attributed to a small number of unique, high-impact graduate and undergraduate programs and that the most critical factor in attracting students of any race is high-quality academic programs. (*Id.* at 22-23.) Consequently, UMES has identified clusters of unique, high-demand programs that they believe will increase its advantage in attracting other-race students. (*Id.* at 35-36.)

This strategy is validated by other HBI presidents. Dr. Mickey Burnim, President of Bowie, testified that based on his years of experience in higher education and looking at the factors that affect enrollment, institutional reputation and growth, "students, in making decisions

about universities and colleges, look first or perhaps most importantly to the degree programs that are offered." Students enroll in institutions "to pursue specific courses of study, and those courses of study are defined as programs, and so that is a major component in making decisions about where to go to school." (1/11/17 AM Trial Tr. at 22 (Burnim).) In fact, "in the first instance, degree programs will drive enrollment." (*Id.* at 24.)

Moreover, Dr. Burnim testified that high-demand programs are important to an institution's ability to attract more students whereas low-demand programs are less effective in that respect. (1/10/17 AM Trial Tr. at 96-97 (Burnim).) More importantly, his past experiences seem to confirm that programs may play a role in desegregation. As the founding dean of the College of Basic and Applied Sciences at Fayetteville State, an HBI in North Carolina, Dr. Burnim testified that one of the goals was "increase the number of non-African American students." In order to effectuate that goal, Dr. Burnim testified that "the State supported our efforts for new program development." (*Id.* at 98-99.)

Dr. Maria Thompson, President of Coppin, also agreed that academic programs drive enrollment and that the HBIs and Coppin specifically have the capacity to enroll more students. (1/11/17 PM Trial Tr. at 67 (Thompson).) Dr. Thompson testified that academic programs are the most critical factor in attracting students of any race because if an institution is to enroll a volume of students it needs programs that are "popular." (*Id.* at 67-68.) In terms of an institution's ability to enroll other race students, Dr. Thompson observed that if Coppin were to have a "strong programmatic niche that is well funded" it would permit that institution to reach enrollment capacity and that enrollment would include other-race students. (*Id.* at 87-88.)

More specifically, Dr. Thompson testified that unique programs that are also high-demand can establish and sustain institutional identity by allowing Coppin to attract enough

students to fulfill its enrollment capacity. (*Id.* at 88-89.) If Coppin offers a narrow number of or types of programs, it limits the volume of students it can attract, whereas offering "a greater variety of the right types of program . . . will optimize the number and volume of students I can attract." (*Id.* at 69-70.)

Further to this point, Dr. Thompson, Dr. Bell and Dr. Burnim jointly authored an editorial responding to the State's remedial proposal. "Rather than offering programmatic enhancements that would support our efforts to bring greater diversity to our campuses, the state has offered nominal support in the form of summer programs for high school students and joint academic programs between our institutions and the state's traditionally white institutions (TWIs)." (PRX 1 at 1.) They emphasized that "programs drive our enrollment." (*Id.*) "Offering more high-demand, high-quality academic programs would have a much greater impact on our efforts to attract the best and brightest students and increase diversity at our institutions." (*Id.* at 2.)

These opinions are strikingly similar to those of the four past presidents of Maryland's HBIs who submitted a letter addressing their concerns about the State's lack of compliance with its agreement with OCR. In that 2005 letter assessing the State's progress toward implementing the commitments outlined in the Partnership Agreement, all four HBI presidents noted that the "relatively narrow missions and substantially fewer academic programs" at the HBIs compared to the TWIs "limited their attractiveness to students of all races." (PTX 13 at 4, 9.)

The HBI presidents wrote that the "broader academic missions" of the TWIs facilitated a level of program development on those campuses that "widened the gap between them and the HBIs" and "substantially narrowed the areas in which HBIs can develop new programs in the future." (*Id.* at 9.) Furthermore, it was believed that the relatively low level of program development at the HBIs during that time period reflected the "inadequate infrastructure on the

campuses." (*Id.*) It was indicated that the HBIs required unique institutional missions and programs and needed to offer attractive academic programs without undue duplication at nearby campuses. (*Id.* at 4, 9.)

Even the presidents of Maryland's TWIs confirm that academic programs influence an institution's ability to attract students. Dr. Freeman Hrabowski, who rejected the concept of unnecessary program duplication (1/30/17 Trial Tr. at 154-55 (Hrabowski)), still recognized that "universities are places where you have an array of programs" and if an institution has a "punier" or "thinner" inventory than other institutions, "we limit the people who will look at us as a university." (*Id.* at 122.) Dr. Hrabowski testified that strong academic programs are "important" to an institution's ability to attract students, although the strategies used to market those programs and the relationships an institution builds are also important. (*Id.* at 123-24.) What attracts students of all races is "high-quality programs." (*Id.* at 154.)

University of Baltimore President Kurt Schmoke agreed that students are generally looking for quality programs at an affordable price, and that those programs attract students of all races. (2/9/17 Trial Tr. at 103 (Schmoke).) The ability of an institution to attract a diverse group of students is "probably going to be based around programs." (*Id.* at 131.) While a university may not be able to expect all of its programs to be unique, to the extent a program is unique to an institution it can contribute to institutional identity. (*Id.* at 104.) Indeed, President Schmoke testified that unique programs make an institution more competitive for both faculty and students. (*Id.*) During his tenure, President Schmoke has therefore explored different ways to make UB more distinctive through the strength of its programs. (*Id.* at 110.) UB believes that distinct programs attract students and it has promoted those programs with that in mind. (*Id.* at 111.)

President Schmoke also confirmed that all institutions are competing with each other for students, and this includes public, private for-profit, private non-profit and online institutions. (*Id.* at 105.) In fact, he agreed that Maryland has an increasingly competitive market for higher education and that competition is particularly intense within the Baltimore region. (*Id.* at 105-06.) This has been President Schmoke's experience with UB, which he believes competes with community colleges and other public and private institutions within the Baltimore area for prospective students. (*Id.* at 109.) This includes competition with Morgan, Coppin and even Bowie within the Baltimore metropolitan area. (*Id.*) Consequently, institutions need to distinguish themselves because students have a range of choices in terms of where to pursue their higher education. (*Id.* at 109-10.)

In addition, the State's own documents validate the Plaintiffs' overall remedial theory. For example, the 1937 Soper Commission noted that "several institutions of both the white and Negro groups are undertaking to perform the same cluster of functions" to the detriment of Maryland's HBIs. (PTX 17 at 56.) Similarly, the Cox Task Force identified ways to "enhanc[e] the role and image of the predominantly Black public colleges in the State," eventually recommending that the HBIs "develop [their] own specialty areas or programs within the total state system that will broaden the appeal of the institution to a more diverse student body." (PTX 22 at 5, 20-21.)

Maryland's 2009 State Plan for Higher Education also recognized the need to invest "[s]ubstantial additional resources" in the HBIs in order for them to be "comparable" and "competitive" with the TWIs. (PTX 1 at 30-31.) As this Court recognized, even MHEC recognized that mission creep presents a systemic problem that undermines competitiveness and the uniqueness of each institution. (2013 Op. at 29.)

C. Niches Amplify Desegregative Potential and Contribute to Institutional Identity.

The courts have also recognized that there is a "strong 'symbiotic relationship'" between programs and institutions. *Knight II*, 900 F. Supp. at 315. Academic niches amplify the desegregative potential of unique and/or high-demand programs. Programmatic niches are fundamental to developing institutional identities that go beyond race because those niches – and the programs housed within them – have the potential to attract white students to the HBIs. (PRX 312 at 27 ¶ 160.) Niches refer to constellations of thematically similar programs which have at their core a number of unique and/or high-demand programs and are associated with other programs – including core programs – already offered by an institution (2/21/17 Trial Tr. at 102 (Allen).) Niches are critical to the "branding" of institutions, and require a cluster of *distinctive* programs. (1/18/17 PM Trial Tr. at 17 (Allen); 1/19/17 PM Trial Tr. at 51 (Allen).)

Dr. Allen identified what he described as "emerging" or "promising" niches at the HBIs such as the cluster of allied health programs at UMES. (2/21/17 Trial Tr. at 102-03 (Allen).) However, he noted that UMES lacked the "scaffolding" provided by other related unique, high-demand programs and related core programs already at the HBI. (*Id.* at 103.) "Clustering through niches is important for . . . this amplification effect," as a "smattering" of such programs will never establish the "critical mass" necessary to get achieve or maintain that amplified effect. (1/18/17 PM Trial Tr. at 15 (Allen).) Without a concerted effort to differentiate the institutional missions and programmatic identities of the HBIs within the overall system of higher education, the introduction of new programs – even if unique and/or high-demand – is unlikely to achieve or sustain the level of desegregation necessary to alter their racial identifiability. (PRX 312 at 13 ¶ 73.)

Creating programmatic niches will likely require some combination of adding new programs at the HBIs, facilitating the targeted transfer of duplicative programs from the TWIs to the HBIs, and the enhancement of existing programs at the HBIs to the extent that is necessary to improve the institutional capacity of the HBI to support and sustain the identified niches. (*Id.* at 9 ¶ 50.) It may also include a number of joint or collaborative programs which might reinforce the programmatic niches. (*Id.*)

The criteria for the identification of the proposed niches and academic programs for each HBI is discussed below in Part V, but the specific recommendations will necessarily vary for each institution. The number, characteristics and combination of programs will depend on institutional mission, the proposed niches, current institutional capacity, competitive advantage of peer institutions for student enrollment, and a variety of factors related to educational soundness and practicability. For example, given their different institutional missions and student population served, the remedial strategy for Coppin as a comprehensive university may differ from that of Morgan as an urban research institution. However, the ultimate and unifying goal for each is to identify a meaningful number of niches and programs sufficient to establish a distinct institutional identity. (*Id.* at 9 ¶ 51.)

Because of the massive duplication in Maryland and the limited number of unique programs which can be created, Plaintiffs propose some niches that include programs which are *neither* unique nor high-demand. To the extent that unnecessary duplication allowed the TWIs to move into and dominate a curricular area or field of study, it has become extremely difficult to identify genuinely distinctive niches or academic programs which would be exclusive to the HBIs. (*Id.* at 28 ¶ 164); 1/18/17 Trial Tr. at 42-43 (Allen).) As a result, to the extent it became necessary to propose niches or programs at the HBIs which are currently offered by a TWI

within an overlapping service area, Dr. Conrad and Dr. Allen did so only to the extent they would strengthen an existing or propose niche or offer great desegregative potential. (PRX 312 at 28 ¶ 164.)

Furthermore, Dr. Allen made it very clear that the desegregative potential of the proposed programs and niches must be analyzed in relationship to the programs already offered by an institution. (2/21/17 Trial Tr. at 94-95 (Allen).) In addition, when identifying the programmatic niches to be established at an institution, "the idea was to build on strengths" which may include existing programs which are unique and/or high-demand. (*Id.* at 94.) Consequently, not every niche or program proposed to be added or transferred must *itself* be unique and/or high-demand.

As an overall strategy, however, there is ample evidence in the record that niches or specialized academic clusters offer desegregative potential. While Dr. Lichtman relies on Bowie's education programs to argue that niches do not offer desegregative potential, the data demonstrates otherwise. (DRE 98 at 70.) The following table demonstrates that Bowie's education programs taken from Table 28 of Dr. Lichtman's September 2016 report and total enrollment from the 2016 MHEC data book show that Bowie's education programs enrolled 10.5% white students compared to 2.7% in all other programs at Bowie. Moreover, with the exception of two programs, the education programs included in Dr. Lichtman's table reflect somewhere between 6.0% and 40.0% white enrollment. This is significantly higher than the 3.5% white enrollment at the institution overall. (*Id.* at 73, Table 28.)

Bowie Total and White Student Enrollment in Education Programs vs. Other Programs

	All Students	White Students	White Student %
Total Enrollment	5,695	201	3.5%
Enrollment in Education Programs	611	64	10.5%
All Other Enrollment	5,084	137	2.7%

There is other evidence in the record which supports the theory that programmatic niches offer desegregative potential. President Schmoke agreed that clustering related programs together can be attractive to students. (2/9/17 Trial Tr. at 120 (Schmoke).) Based on their extensive experience and analysis, Dr. Conrad and Dr. Allen ultimately concluded that clustering unique and high-demand programs around programmatic niches amplifies their desegregative potential and can, over time, enhance the identity and prestige of the HBIs sufficient to overcome the reluctance of students to enroll at a racially identifiable institution. (PRX 312 at 35 ¶ 211.)

Students are often attracted to an HBI when a cluster of aligned programs offer overlapping courses and learning experiences across a broader field of study. The ability to shift between related programs within a single niche can be highly attractive to prospective students. (PRX 312 at 27 ¶ 161.) At the same time, it is important for HBIs to offer programs across degree levels. As President Schmoke confirmed, the ability to offer programs across degree levels can influence student choice. (2/9/17 Trial Tr. at 120 (Schmoke).)

Even though graduate programs may enroll fewer students overall, graduate and professional programs strengthen institutional identity and substantially increase the likelihood that white students might enroll at an HBI at both the undergraduate and graduate levels. (PRX 312 at 27-28 ¶ 162.) This is consistent with Dr. Schmoke's experience as Dean of the Howard

University Law School, where white students tended to be more attracted to Howard's graduate and professional programs than its undergraduate programs. (2/9/17 Trial Tr. at 131 (Schmoke).)

UMBC has actually suggested precisely this niche phenomenon in arguing to "keep" its programs. UMBC claims to have made a "strategic decision to combine all the elements of computing" into a single college, with a continuum of programs ranging from "electronics to systems to software to human interaction." (Doc. No. 448-3 Exhibit B at 2.) UMBC claimed that elimination of any program within that system would "irreparably damage the academic quality of the remaining programs and the academic foundation" of UMBC's College of Engineering. (*Id*. at 2.) UMBC's position actually provides additional evidence of the fact that students are attracted to programs, as Dr. Hrabowski complained that narrowing the engineering offerings at UMBC would "seriously compromis[e] UMBC's competitiveness to attract both students and faculty to the remaining programs" because those programs are "central to UMBC's strength" and "core brand for recruiting." (*Id*. at 9.) These observations support Plaintiffs' overall remedial strategy to create distinctive institutional identities or "brands" based on programs to permit the HBIs to compete for students, faculty and funding.[9]

D. Program Transfers Are Needed to Address the "Mess in Baltimore."

Program transfer is consistent with the State's constitutional obligation to dismantle to dual system. (PRX 312 at 28 ¶ 167.) Indeed, program transfers were contemplated by this Court as one potential remedial strategy. (2013 Op. at 59.) Because of the massive duplication which exists in Maryland, a limited number of programs at geographically proximate TWIs must be transferred to the HBIs to mitigate the competitive advantage enjoyed by the TWIs. (PRX 312 at

[9] Of course, the programs to which Dr. Hrabowski refers were established in violation of *Fordice* and are at the center of the constitutional violation found by the Court in this case. In fact, his comments regarding the importance of clustering programs underscore the harm done to Morgan when Engineering programs were duplicated at UMBC.

28 ¶ 165.) This is essential to address the "massive programmatic imbalance between the TWIs and the HBIs which has rendered it impossible for the HBIs to establish and maintain distinct programmatic niches." (*Id.* at 28 ¶ 165.)

Given the level of duplication within the Baltimore region in particular and the fact that there is "such a saturation of public institutions in Baltimore," it was very challenging to identify unique program areas to carve out for the HBIs. (1/18/17 PM Trial Tr. at 42-43 (Allen).) This duplication was referred to at the first trial as the "mess in Baltimore." (*See* 2013 Op. at 10.) Dr. Conrad testified that because of the "massive duplication," it was "very, very hard…to establish distinct identities at Maryland's four HBIs." (1/25/17 Trial Tr. at 130-31 (Conrad).)

While "painful," Dr. Conrad testified that "there are just going to have to be programs transferred" in order to "take down that wall, that dual system, and concomitantly attract white students to the HBIs." (1/24/17 Trial Tr. at 24-25 (Conrad).) "[T]here are a finite number of new programs that can be created" at the HBIs and those are frequently "already offered at the TWIs with which they're compared." (*Id.* at 67.) As a result, transfers may be required in order to get the unique programs necessary to cultivate institutional identities at the HBIs. Transfers may be particularly compelling where related programs are dispersed among multiple institutions (such as engineering at UMBC and Morgan) or where almost every institution offers related programs at some degree level (such as education or nursing) making it difficult to establish a specialty at any given institution. (PRX 312 at 28 ¶ 167.)

With those considerations in mind, Dr. Conrad and Dr. Allen recommend that -- for the most egregious and consequential examples of unnecessary program duplication and/or program disparity -- a "modest number" of programs be transferred to establish a cluster of programs within the identified programmatic niches for those institutions. (*Id.* at 28 ¶ 165.) "[T]ough

decisions must be made about creating unique programs at select institutions within that area, and particularly trying to build out the HBIs by giving them selectivity, giving them a unique set of programs, because, otherwise, it's just a matter of unnecessary duplication everywhere you turn." (1/18/17 PM Trial Tr. at 42-43 (Allen).)

Consequently, Dr. Conrad and Dr. Allen sought to identify specific program transfers in areas where the HBI could "achieve distinction and could achieve or be – could have developed unique and high-demand programs that carved out their space in that highly competitive, overlapping region of Baltimore." (*Id.* at 43.) The goal was to "offer our ideas for how one would partition that market to make it not only more efficient, but also more fair." (*Id.* at 44.)

Dr. Conrad elaborated that they tried to recommend a set of "sound" proposals that would produce the "least disruption." Although a "massive reassignment" of programs may have been suggested in the context of desegregation, the goal was to look at the niches and institutions and "provide symmetry between our recommendations for niches and adding new programs with the mission and the identity we proposed at the respective institution." (1/25/17 Trial Tr. at 129-30 (Conrad).) Once institutional merger was "taken off the table" by this Court, Dr. Conrad and Dr. Allen "began to look more at transfers." (*Id.* at 133.) In doing so, they sought "to minimize/manage the disruption, disruption at a very measured way to the extent possible that we could." (*Id.* at 132.) Transfers were identified to build on and enrich existing capacity at an institution. (1/24/17 Trial Tr. at 74 (Conrad).) Furthermore, some of the recommended transfers were "triggered" because of the State's historical decisions to duplicate programs at the HBIs. (*See id.* at 69.)

E. Experience In Other States Confirms Niches Are Essential To Desegregation.

Adding discrete programs at the HBIs which may be unique but not high-demand, or high-demand but not unique, may have some but minimal impact on student choice. (PRX 312

at 45 ¶ 263.) More importantly, Dr. Conrad and Dr. Allen conclude that based on their extensive history in higher education desegregation, adding new programs at the HBIs without an effort to strategically link those programs to institutional identity offers "limited potential to alter the long-term racial identifiability of those institutions." (*Id.*)

There are four states in which higher education desegregation cases resulted in a court ordered or negotiated remedial plan: Alabama, Louisiana, Mississippi and Tennessee. Based on fall 2013 enrollment, the HBIs in Alabama, Louisiana and Mississippi ranged from 2.2% to 6.0% white enrollment, revealing that those plans failed to address the racial identifiability of those institutions. (Doc. No. 406-1 at 24-25.) Only in Tennessee, which resulted in an institutional merger of a TWI and an HBI, has the HBI attracted an appreciable number – approximately 24.5% – of white students. (*Id.* at 24-25.)

Tennessee's experience is unusual to the extent that it merged the University of Tennessee Nashville (a TWI) into Tennessee State University (an HBI). However, it reinforces Plaintiffs' remedial theory that proximately unique programs, particularly those which are thematically related, offer desegregative potential. One of the components of the consent decree in Tennessee was to prevent unnecessary program duplication with respect to TSU. When analyzing unnecessary program duplication in the Middle Tennessee region, the Tennessee Higher Education Commission (THEC) assessed the potential impact that programs proposed by Austin Peay and Middle Tennessee State might have on the desegregation at TSU. (2/14/17 Trial Tr. at 145-51 (Lichtman); PRX 490 at 16-17.) According to the consent decree, TSU is to maintain exclusivity in the Middle Tennessee region for all programs in which it enjoys exclusivity unless there is a demonstrated need and a showing that duplication will not "adversely affect the desegregation at TSU." (PRX 490 at 17.) This exclusivity allowed TSU to

build strong programs that included high numbers and percentages of white students. In the course of cross-examining Dr. Lichtman at trial, Plaintiffs provided three examples of proximately unique programs that attracted high number and percentages of students. All three programs are in health related fields and are not currently duplicated or offered by the other Middle Tennessee schools Austin Peay and Middle Tennessee State.

Dr. Lichtman conducted an analysis of duplicated programs within Tennessee using enrollment data disaggregated by program and race for Tennessee State University. (DRE 70 at 57; 2/14/17 Trial Tr. at 152-58; PRX 55.)[10] In the graduate physical therapy program, 90 of the 109 students enrolled were white. (2/14/17 Trial Tr. at 154-55 (Lichtman); PRX 55 at 7.) In the graduate speech and hearing science program, 56 of the total 72 students enrolled were white. (2/14/17 Trial Tr. at 156-57 (Lichtman); PRX 55 at 8.) The undergraduate degree in dental hygiene has a total of 111 students and 48 of them are white. (2/14/17 Trial Tr. at 158 (Lichtman); PRX 55 at 4.)

According to the THEC online and searchable Academic Program Inventory (API), the graduate Physical Therapy program at TSU is not offered by either Austin Peay State University or Middle Tennessee State University, which means that it is proximately unique to the region. (2/14/17 Trial Tr. at 155-56 (Lichtman); PRX 491.) Similarly, the master's in Speech and Hearing Science is exclusively offered at TSU according to the API search by CIP code. (2/14/17 Trial Tr. at 156-58 (Lichtman); PRX 492.) The undergraduate degree in Dental Hygiene available at TSU is not offered at Austin Peay or Middle Tennessee State. (2/14/17 Trial Tr. at 159); PRX 493.) In other words, three health-related programs which appear to be

[10] Dr. Lichtman testified that he used the MHEC online Academic Program Inventory or API in order to determine which programs are offered at different institutions, based on program name and CIP code. (2/14/17 Trial Tr. at 152-153 (Lichtman).)

proximately unique to TSU have high levels of white enrollment, which is consistent with Plaintiffs' remedial strategy.

Moreover, TSU has been extremely successful in attracting white students to its graduate programs. Today, the graduate programs at TSU have high levels of white enrollment. As of fall 2015, approximately 40% -- a plurality -- of the total number of graduate students at TSU are white. The total number of white students at TSU exceeds that at all four of Maryland's HBIs combined. (2/14/17 Trial Tr. at 143-44 (Lichtman).)[11]

Dr. Allen testified about the extent to which the remedial strategies in those cases reflected some of the basic remedial principles proposed here. Both he and Dr. Conrad were involved in the remedial phase of the *Ayers* litigation in Mississippi, which recognized that "programs not duplicated at proximate institutions, targeted to local demands, are essential in terms of achieving the goals that we set for programmatic niches: creating a distinctive identity" to attract students of a diverse background. (1/18/17 PM Trial Tr. at 11 (Allen).) Similarly, in the *Knight* case in Alabama, "the strong symbiotic relationship between programs and schools is emphasized" with "the emphasis being on generating a critical mass of other-race students through the vehicle of placing on those campuses unique, high-demand programs." (*Id.* at 11-12.)

However, Dr. Allen testified that in Alabama, it was "the money alone that was targeted toward attracting students" and "there was not equal importance being paid to building out the academic programs and building out the institution across the board." (*Id*. at 21.) *Knight* appears to have overestimated the extent to which other measures might desegregate the

[11] This testimony referred to Slide 56B of the Demonstratives referenced during Dr. Lichtman's direct examination which show that 760 of 1,903 or 40% of graduate students at TSU are white and cites to Tennessee State University's "Quick Facts Fall 2015."

institutions, specifically other-race scholarships, recruitment, and extra funding – particularly scholarships. *Knight II*, 900 F. Supp. at 318-20 ("other-race scholarships are the most educationally sound and practicable mechanism to eliminate those particular perceptive barriers [that foster segregation]"; "[f]inancial aid is a powerful magnet in attracting white students to HBIs"; "financial aid, economic considerations, and factors involving the accumulation of debt, all play a very important role in the student choice"; and "offering carefully designed other-race financial aid is an important mechanism to promote desegregation"). This produced a remedial decree that did nothing to alter the dual curricular structure. *Id.* at 349-75.

Consequently, he observed that "distinctiveness of programming was not achieved, and so students would come there solely and only based on scholarships." (1/18/17 PM Trial Tr. at 21-22 (Allen).) On the other hand, if you have programmatic niches associated with a "quality program" then "it will pay dividends down the road." "You have to build the academic programs as well. You have to build the distinctive identities. You have to have those unique programs available." (*Id.* at 22.)

In developing their remedial proposal, Dr. Conrad and Dr. Allen therefore incorporated "lessons learned" from participating in remedies in Alabama, Louisiana, Mississippi and Tennessee, where remedies were "partially successful but that did not fulfill the promise." (*Id.* at 85.) Those experiences informed their approach here: "We focused on creating programs within niches to enhance institutional academic identity; that is, wanting to build distinctive programmatic niches that were anchored in academic programs that had – that were unique and that were high demand and further building around those programs, strengthening the programs around that are affiliated with that niche." (*Id.* at 85-86.) Unique programs "give you the

greatest bang for the buck and move the dial, just a program that is unique and only available at the HBI." (*Id.* at 86.)

To the extent that HBIs in other states have seen increases in white enrollment, it tends to be at the program level. In Alabama, Dr. Allen testified that "there were high-demand and some unique programs placed at the HBIs, but it was a smattering." He elaborated, "It was not enough of a critical mass" to move the needle at the institutional level. (*Id.* at 37-38.) Consequently, "in order to move the needle and desegregate a system, the point is to amplify that effect and to sort of crystallize, codify it. And so that then requires more programs and these distinctive niches that have associated with them unique, high-demand programs. So not simply one or two such programs, but a critical mass or a corpus of such programs that then move that institution and that system forward." (*Id.*)

Some other states have demonstrated more of a commitment to addressing their segregated systems than Maryland. Dr. Bell shared some of her experience working in the North Carolina system of higher education at an HBI. She observed that in North Carolina, desegregation was addressed "at the system level and within each institution." (1/10/17 PM Trial Tr. at 73 (Bell).) In addition to funding for facilities, Dr. Bell noted that new academic programs were part of that process. "The State identified focus-growth institutions. Those were primarily the HBCUs and a couple of TWIs that were in the western part of the state." (*Id.* at 72.) More importantly, she testified that funds were allocated for program development that helped the state grow significantly during her tenure and "direct" actions "were taken that helped to address the issue of increasing diversity, I believe, at those institutions that I have not seen here." (*Id.* at 72-73.)

F. Joint and Collaborative Programs Offer Limited Desegregative Potential.

This Court also noted that collaborative programs may "enhance the quality of current and newly developed programs at the HBIs and may be an additional effective and creative method of enhancing the HBIs' programs." (2013 Op. at 60.) Dr. Conrad and Dr. Allen assert that where a TWI offers a very high-demand program not currently available at a nearby HBI, some consideration should be given to replacing those with joint programs. (PRX 312 at 31 ¶ 186.) However, they emphasize that while joint or collaborative programs may offer some desegregative potential within programmatic niches, "it is our opinion that in general they have limited independent desegregative potential." (*Id.* at 31 ¶ 187.)

Joint programs may offer little in terms of establishing a distinctive institutional identity at the HBI in that by definition the programs are associated with multiple institutions. (*Id.*) "It is often challenging to ensure that faculty and staff at the respective campuses are able to devote the resources necessary to ensure the success of that program over time." (*Id.*) In addition, cooperative arrangements may not eliminate duplicative programs which may not lead to significant or sustained increases in white enrollment at the HBIs. (*Id.* at 31 ¶ 188.) As Dr. Conrad testified, "joint and collaborative programs don't contribute to dismantling the dual system" although they may supplement other programs. (1/24/17 Trial Tr. at 117 (Conrad).) While they may be helpful, "they don't ultimately desegregate in a meaningful way and differentiate one institution from another." (*Id.* at 117.) Dr. Allen testified that collaborative programs could "conceivably" offer desegregative potential, but one of the reasons they rarely accomplish that goal is because many are structured "between unequal institutions, so they're not full collaborations and they don't really yield the goal of desegregation." (2/21/17 Trial Tr. at 109 (Allen).) Consequently, "those collaborative programs are not drawing white students in any numbers to the historically black institutions." (*Id.* at 109-10.)

President Schmoke shared similar concerns related to the joint MBA program which existed between UB and Towson. Prior to its discontinuance, President Schmoke made a decision to review that program in order to determine whether it should continue. He became aware of some faculty complaints that the UB MBA program should be distinct, and his faculty wanted the marketing and advertising for that UB degree to highlight the University of Baltimore. (2/9/17 Trial Tr. at 111-12 (Schmoke).) The faculty believed that the lack of distinctiveness of that joint degree was confusing to students and that a standalone UB degree would be more attractive to students than one that was marketed as belonging to multiple universities. (*Id.* at 112-13.)

President Schmoke also shared his experience related to his attempt to develop a collaboration with Coppin when President Mort Neufville was there, and the importance of faculty buy-in. They discussed the possibility for UB and Coppin to collaborate on their programmatic offerings. (*Id.* at 29.) "I learned a lesson in trying to do this, which was that the presidents could agree on ideas of collaboration, but…if the faculty didn't agree, if the faculty wasn't really committed to it, nothing was going to happen." Consequently, "nothing was occurring in the collaborative effort until a group of the faculty members decided…this would be interesting to explore." (*Id.* at 29-30.) These efforts received no support, financial or otherwise, until after President Schmoke's deposition when the Chancellor offered funding for UB and Coppin to collaborate on an initiative to increase the pipeline of students from Baltimore City to enter Coppin and UB. (*Id.* at 115-16.)

Dr. Bell expressed similar concerns about the State's proposal to establish a fund for joint programs between the TWIs and the HBIs as part of the remedy in this case. Dr. Bell testified that the amount of funding for joint programs was "nominal" in that it was to be shared between

the TWIs and HBIs. (1/10/17 PM Trial Tr. at 10 (Bell).) More importantly, however, she expressed doubt about the extent to which such programs would eliminate the vestiges of discrimination at the HBIs. In addition to the shared funding, Dr. Bell asked, "how are you going to ensure that the programs that are developed are developed in a way where there's a true partnership between the TWI and the HBI to make sure that we're on equal footing and parity so that students who are in that program will choose to come to UMES versus going to the TWI." (*Id.* at 25.) "[I]n order to have a true partnership you have to have parity between the partners." (*Id.*) With respect to desegregative potential, Dr. Bell testified, "So I think having a joint program is not an automatic guarantee that you're going to have diversity in the programs." (*Id.* at 28.)

In fact, Dr. Bell disclosed that the "so-called great relationship that SU and UMES has on our joint programs is not necessarily as rosy as the picture has been painted because some of those programs work and some of them don't . . . . We are still struggling to make sure that we can create an environment where white students want to come to us. And we believe they come because we are the only one that has the program in the region that they are trying to pursue. And in some cases, even that is not sufficient because these programs have not been supported and we are losing them." (*Id.* at 70-71.)

Similarly, Dr. Richardson testified that "in order for collaboration to contribute to desegregation, it must be within a complementary system of higher education, where there is not the duplication between the various institutions." (1/17/17 AM Trial Tr. at 56 (Richardson).) If each institution has strengths that complement each other, collaborative programs might offer desegregative potential but Dr. Richardson testified that "I know of at least a dozen or so programs that were designated or proposed as collaborative programs between Morgan, Towson,

UMBC, and the University of Baltimore. I don't know a single one of them that has contributed one iota to desegregation." (*Id.* at 56.) He attributed this to the fact that the collaborative programs "came about as a result of the TWIs wishing to duplicate programs at the HBI" and the collaborative programs were a "compromise" recommended by MHEC. (*Id.* at 56-57.)

G. There Are Sound Criteria for the Selection of Niches and Programs.

Dr. Conrad and Dr. Allen identified a number of criteria or considerations which should guide this Court's consideration of the programmatic niches which might offer the greatest desegregative potential for Maryland's HBIs. *First*, programs should contribute to strengthening a programmatic niche which enhances the distinctiveness of the institutional identity of the HBI, as well as the current and long-term opportunities to develop new program or transferred programs, while sustaining the viability of existing programs at those institutions. (PRX 312 at 29 ¶ 169.) *Second*, to the extent possible, new and transferred programs should be both unique and high-demand. (*Id.* at 29 ¶ 170.) *Third*, even if new and transferred programs are not unique, they should be as high-demand as possible. (*Id.* at 29 ¶ 171.) *Fourth*, to the extent possible, programs should be unique. (*Id*. at 29 ¶ 172.) *Fifth*, new or transferred programs should complement those at the same degree level and establish a pathway across degree levels. (*Id.* at 29 ¶ 173.) *Sixth*, niches and new or transferred programs should prevent mission creep and contribute to greater efficiency and alignment in the higher education system. (*Id.* at 29 ¶ 174.) *Finally*, the Court should consider local and regional labor demand for programs and professional opportunities. (*Id.* at 29 ¶ 175.)

As discussed below, Plaintiffs considered these criteria – and the relative desegregative potential of academic niches and programs – in designing their specific recommendations for the HBIs. Plaintiffs did not have access to the HBI presidents or faculty as they engaged in this process. (1/24/17 Trial Tr. at 28 (Conrad).) When asked whether that would have been helpful,

Dr. Conrad responded, "I think so, because I think that as this process unfolds, that there's nothing like spirited dialogue, including in the courtroom, that can help to advance a remedial proposal that's compelling and will address the formidable task at hand." (*Id.*) However, the record shows that Plaintiffs were denied access to all of the institutions when they were attempting to prepare their remedial proposal and recommendations. This Court inquired whether – outside of mediation – the HBIs or their administrators had an opportunity to consult with Plaintiffs' experts. When informed that they had not, and that Plaintiffs had objected to that, this Court observed, "that's ridiculous." (1/11/2017 PM Trial Tr. at 93.)

V. THE CREATION AND DEVELOPMENT OF DISTINCTIVE PROGRAMMATIC NICHES AT EACH OF THE HBIS IS SUPPORTED BY THE RECORD.

The central component of Plaintiffs' remedial proposal is the creation of distinctive programmatic niches at each of the HBIs. These niches, which in part, include unique and/or high demand programs, are designed to attract students of all races to the HBIs by establishing institutional identity. The Court has twice indicated that the niche approach appears promising. In its liability opinion, the Court stated that the niche concept "appears to be a promising starting point." (2013 Op. at 59.) And, subsequently, in February 2016, the Court also stated that the Plaintiffs' "proposals for creation of niche areas of programmatic concentration, with increased new and high-demand offerings, appear promising but need more thorough discussion." (2016 Order at 2.)

Drawing on their decades of experience concerning HBIs, Plaintiffs' experts, Drs. Conrad and Allen focused on the concept of niches in particular because they have a significant potential to desegregate HBIs. (PRX 312 at 7 ¶¶ 39-40.) Dr. Conrad and Dr. Allen's opinion that programmatic niches have significant desegregative potential is based on the fact that the quality and uniqueness of programs attract students of all races. (*Id.* at 8 ¶ 45.) Thus, Plaintiffs'

remedial proposal centers on the idea that programmatic niches, anchored in unique, high demand and high quality programs, are the most compelling strategy to attract students of all races. (*Id*. at 8 ¶ 46.) According to Drs. Conrad and Allen, niches can build on existing strengths of HBIs by concentrating resources in areas of study where there is student demand and that have existing institutional capacity at the HBI to house the niche. (*Id*. at 9 ¶ 50.)

In crafting their proposal for programmatic niches, Plaintiffs' experts drew from a number of sources. These include enrollment trends at HBIs, case studies of schools and programs, research and scholarship about desegregating HBIs, remedies in Louisiana, Alabama, Mississippi, and Tennessee, labor statistics, and opinions and experiences of leaders in higher education. (*Id.* at 13-15 ¶¶ 74-82; 1/18/17 PM Trial Tr. at 3-20 (Allen).) Plaintiffs' experts then proceeded individually to craft 2-3 niches for each HBI.

Each of the niches are set forth below arranged by university. The discussion includes a list of the new and transferred programs for each niche and the justification for each niche. The discussion also includes a description of each HBIs proposal, and in the case of Bowie the separate faculty proposal, and a comparison between those proposals and the Plaintiffs' proposal.

Moreover, the discussion below also tries to estimate the new capital costs associated with Plaintiffs' remedial proposal. This was done by matching each niche to the existing building inventory, and in the case of the proposed Pharmacy and Health Professions for UMES, the State's existing commitment to build a new Pharmacy building. In addition, the HBI proposals were also used as a reference were they detailed expenses, including capital expenses, for programs that were similar to Plaintiffs' niches. The testimony of the HBI Presidents was also used as a reference.

There appears to be, at most, two major capital expenses that would result directly from implementation of the niches in Plaintiffs' proposal. Morgan State identified a one-time capital cost of $56 million associated with an Engineering niche. UMES identified a $75 million cost for a new Veterinary Medicine building, though, as discussed below, Plaintiffs' expert Walter Allen testified that there may be lower-cost alternatives. Closer review by the Special Master and Monitoring Committee may reveal additional capital expense needs.

A. Bowie State

Bowie State University is a public, comprehensive university that was founded in 1865. As noted by Dr. Allen and Dr. Conrad in their report, Bowie is the oldest HBI in Maryland and one of the ten oldest HBIs in the United States. (PRX 312 at 23-24 ¶ 134.) Over the course of 152 years, it evolved from a teacher's college into a doctoral degree-granting university; however, it presently only has a handful of concentrations, including an education program that ties into its founding mission. (*Id.*) Despite its institutional promise, none of Bowie's current programmatic offerings distinguish it from other institutions in the Baltimore region, and this fact guided the way in which Dr. Allen and Dr. Conrad fashioned their recommendations for this historic institution. (*Id.*)

Plaintiffs propose the following programmatic niches for Bowie State: (i) Computer Sciences and (ii) Professional Studies. (*See id.* at 174-75.) Dr. Allen and Dr. Conrad identified these two programmatic niches for Bowie by studying career trends predicted by state and federal agencies, as well as considering the institution's current academic strongholds. Through these two niches, Dr. Allen and Dr. Conrad selected twelve new programs for Bowie, seven of which would be high-demand and three of which would be proximately unique; the experts also recommended the transfer of a doctorate program in Information and Interaction Design from the University of Baltimore to Bowie. (1/18/17 PM Trial Tr. at 71 (Allen).)

Dr. Allen and Dr. Conrad considered the existing successes of the institution, the historic mission of the school and the demands of the metropolitan Baltimore-Washington, D.C. area in which Bowie is located.

1. Computer Sciences

The proposed computer sciences niche entails the creation of eight new programs at Bowie State University and includes one transferred doctoral program from the University of Baltimore. The following table reflects the new and transferred programs that would be included in Bowie's computer sciences niche:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
10.0202	Masters	Communication Media	New	Statewide and Proximate Unique
11.0401	Bachelors	Information Systems/Technology	New	Extremely High-Demand
11.0401	Masters	Information Systems/Technology	New	Extremely High-Demand
11.1003	Bachelors	Cybersecurity and Information Assurance	New	Extremely High-Demand
11.1003	Masters	Cybersecurity and Information Assurance	New	Extremely High-Demand
11.9999	Masters	Computer Technology	New	
43.0117	Masters	Forensic Studies in Accounting	New	
51.0706	Masters	Health Information Management	New	
50.0401	Doctorate	Information and Interaction Design	Transferred (from UB)	Statewide and Proximate Unique

(PRX 21 at 15-16, PRX 353.)[12]

In determining that a niche in computer sciences would be a good fit for Bowie, Dr. Allen and Dr. Conrad noted that the institution currently has a number of Computing Accreditation Commission (CAC) accredited programs in the computer science field. (PRX 312 at 47 ¶ 275.) Dr. Allen and Dr. Conrad also recognized the growing demand of academic programs within the discipline of computer science, and they concluded that such additions to Bowie "would strengthen its programmatic identity and advance meaningful differentiation between computer science programs within the USM." (*Id.* at 174.)

Dr. Allen also provided his support to this position through his trial testimony. He noted that state and national statistics support the assertion that computer science is a fast-growing area in terms of both careers and student interest. (1/18/17 PM Trial Tr. at 71 (Allen).) According to his testimony, the experts also strategically contemplated the imperative intersection of technology, business and computer science; this consideration factored into the development of Bowie's computer science niche. (*Id.* at 72.) Dr. Allen noted that the existing programs at Bowie that would fit into this niche would be heavy in terms of computer sciences, communications media, and it would include ancillary and related programs in technology and bioinformatics. (*Id*.)

During the trial, Dr. Allen asserted that many of the programs in Plaintiffs' expert proposal complete the sequence of degrees offered at Bowie, and they create pathways to advanced degrees. (*Id*. at 73.) He also stated that it is important to create pathways that include terminal degrees; this rationale provides the primary justification for the proposed doctoral program that would be transferred from UB to Bowie under the proposal. (*Id*.) He stated that by

[12] In discussing "desegregative characteristics" with respect to *transferred* programs, the *post-transfer* characteristic is used.

building a strong complement of high demand programs in an existing area of concentration at Bowie, by virtue of the graduate unique and high-demand programs included in them, this niche would increase the other-race enrollment of Bowie.

Dr. Mickey Burnim, the president of the institution, testified to the existing strength of the computer science program at Bowie and welcomed the opportunity to strengthen it through the creation of a niche. He asserted that this academic area currently contains several programs, offers students the opportunity to learn through research, includes a faculty that is active in research endeavors and possesses the ability to ensure that the program's graduates continually secure job offers prior to graduation. (1/11/17 AM Trial Tr. at 32-33 (Burnim).)

Dr. Allen indicated that there would not be significant capital costs associated with the creation of this niche. (*See* 2/21/17 Trial Tr. at 126-28 (Allen).) This is primarily due to the fact that Bowie has a Computer Science Building on campus that currently houses the computer science department; during the remedial trial, Dr. Burnim asserted his understanding that the building was approximately two to three years old when he arrived at Bowie in 2006. (1/11/17 AM Trial Tr. at 41 (Burnim).)

2. Professional Studies

The proposed professional studies niche at Bowie State University includes four new programs and no transferred ones. The following table describes these four new programs:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
42.0101	Masters	Psychology	New	High-Demand
42.2805	Doctorate	School Psychology	New	Statewide and Proximate Unique
44.0701	Masters	Social Work	New	Extremely High-Demand

51.3818	Doctorate	Nursing Practice	New	Extremely High-Demand, Proximate Unique

(PRX 21 at 16; PRX 353.)

Dr. Allen and Dr. Conrad drew support for Bowie's proposed programmatic niche in professional studies from a number of trends and occurrences. Specifically, they noted the necessity of the Affordable Care Act's continued implementation and the demands of a rapidly aging and diverse population in justifying the creation of this programmatic niche at Bowie. (PRX 312 at 175.) Dr. Allen and Dr. Conrad also crafted this niche with the recognition that a great deal of emphasis is currently being placed on wellness and preventive health by institutions of higher education. (*Id*.)

During the remedial trial, Dr. Allen pointed to the success of Bowie's nursing, social work and education programs, as well as the state's demography, to justify the creation of this programmatic niche. (1/18/17 PM Trial Tr. at 75 (Allen).) Dr. Allen also spoke about the changes to society's occupational structure, primarily manifested in the growing necessity of professional specializations; in his expert opinion, this occurrence makes programs like the ones included in Bowie's professional studies niche even more essential in the modern economy. (*Id*.) Additionally, he testified that a program, like the proposed master's degree in social work, creates a pathway when viewed in connection with the existing bachelor's degree in social work at Bowie. (*Id*. at 78.) Such action would assist in completing the university's degree sequences, and it would contribute to the institution's ability to attract students of other races to its campus. (*Id*. at 77.)

Additionally, during rebuttal, Dr. Allen expressed that capital costs would not be a concern for this niche because of Bowie's existing facilities. (2/21/17 Trial Tr. 128 (Allen).) To

that end, Bowie is in the process of completing a new Center for Natural Sciences, Mathematics, and Nursing building. (*See* 1/11/17 AM Trial Tr. at 87-88 (Burnim).)

3. Bowie's Proposals and Plaintiffs' Recommendations

Two proposals emerged from Bowie as a result of the Court's October 2013 memorandum opinion. Bowie's faculty senate authored the first one in January 2015 (PRX 4), and the second was submitted as the university's response to Interrogatory 19 during the remedial phase of this litigation. (PRX 7.)[13] During his deposition, Dr. Weldon Jackson, the provost of Bowie, asserted that, with regard to the drafting process, there was no relationship between the faculty senate proposal and the document submitted in response to Interrogatory 19. (11/4/16 Dep. Desig. at 27 (Jackson).) Bowie's President, provost and deans authored one proposal, and the faculty senate wrote an entirely different one.

a. Bowie President's Proposal

The Bowie President's Proposal contains a request to fund a collaboration with the University of Maryland Baltimore County, regarding a Cybersecurity certification program. This is the only part of the proposal that contains capital costs. (1/11/17 AM Trial Tr. at 35-40 (Burnim); PRX 7 at 3.) It also recommends ten new programs for Bowie: a bachelor's degree in cybersecurity and information, a bachelor's degree in data science, a master's degree in network technology, a bachelor's degree in computer systems analysis, a bachelor's degree in gaming, a bachelor's degree in health information technology, an RN to MSN program, a certificate in English as a Second Language (ESL), a bachelor's program in forensic accounting and enhancements to existing graduate computer science programs. (*Id*. at 4-5.) Bowie submitted

[13] Plaintiffs note that PRX 4, the Bowie faculty proposal, is subject to Plaintiffs' pending Motion to Admit PRX 4 and PRX 503, filed concurrently herewith. The admission of these exhibits was unresolved at the close of trial and, having been unsuccessful in negotiating the issues with Defendants, Plaintiffs have moved the admission of PRX 4 and PRX 503 for the reasons stated at trial and in the accompanying motions. (Doc. No. 617.)

these new academic programs and enhancements for consideration because they "would serve to strengthen the university's identity and promote desegregation. (*Id*.)

Many of the programs in the Bowie President's proposal would be housed in Computer Science. (1/11/17 AM Trial Tr. at 40-42 (Burnim).) This correlates highly with Plaintiffs' proposal for a Computer Sciences niche. There is also overlap with Plaintiffs' professional studies niche, most notably through the creation of an RN to MSN program. (PRX 7 at 5.)

It is worth noting that the primary difference between the Plaintiffs' expert proposal and the Bowie President's proposal is that the former recommends more programs at the graduate level. As established in the introductory portion of this section, Dr. Allen and Dr. Conrad have determined, over decades of studying the issue, that graduate programs are generally better at attracting students of all races than undergraduate ones.

b. Bowie Faculty Proposal

The faculty senate proposal called for the enhancement of existing academic programs at Bowie, and it recommended the creation of five niches at the school: (i) Business, Computer Technology, and Computer Science; (ii) Health Sciences, Natural Sciences, and Computer Technology; (iii) Education and Human Development; and (iv) Interdisciplinary Studies. (*See* PRX 4.) In proposing these five niches, the faculty senate relied on the mission of Bowie State University, which, in part, commits the institution to increasing the number of students who earn advanced degrees in disciplines such as computer science, education and health sciences. (*Id*.)

Through its first two niches, the faculty senate proposal overlaps with computer science niche recommended by Dr. Allen and Dr. Conrad. These clusters focus on computer science and technology, and this emphasis is reflected through the nine programs that are included in the computer science niche of the Plaintiffs' expert proposal. Both proposals place emphasis on building up popular academic area at Bowie through solid degree programs.

An even stronger similarity exists between the professional studies niche in the Plaintiffs' expert proposal and the health sciences, natural sciences, and computer technology niche included in the faculty senate proposal. Both proposals recommend the creation of a doctorate in nursing practice at Bowie.

One more point that should be mentioned is that the faculty senate proposal represents a more ambitious set of recommendations than the ones contained in the Plaintiffs' expert report. Dr. Allen and Dr. Conrad were both deliberate and pragmatic as they crafted their proposal. While the faculty senate proposal suggests the creation of five niches at Bowie, Dr. Allen and Dr. Conrad only suggest that two should be built into the institution.

B. Coppin State

Coppin was formed to train Black elementary school teachers, although it operated as part of the black high school in Baltimore until 1909. (PRX 312 at 24 ¶ 35.) In 1938, Coppin became a four year college, offering an undergraduate degree in education. (*Id.*) In 1950, it became a state-owned institution, ultimately growing into a comprehensive college in 1970. (*Id.*) It was finally designated an urban and residential university in 2004. (*Id.*) Today, it remains primarily an undergraduate institution which seeks to address the challenges faced by the population in Baltimore's central city and immediate metropolitan area. (*Id.*) Along with its community outreach programs, Coppin has focused on the liberal arts and professional fields such as education and nursing. (*Id.*) Only 1.4% of the students enrolled at Coppin in fall 2014 were white. According to Dr. Conrad and Allen, Coppin has not yet achieved an institutional identity beyond race. (*Id.*)

Plaintiffs propose the following programmatic niches for Coppin State: (i) Nursing and Allied Health, and (ii) Criminal Justice and Applied Social and Political Sciences. The remedial plan recommends a total of 17 new programs of which 2 are proximately unique and 12 are high-

demand. The Criminal Justice and Applied Social and Political Sciences niche includes 8 transferred programs from a TWI to Coppin. Plaintiffs also suggest a series of enhancements that build on Coppin's current capacity such as its capital facilities and existing staff. (1/24/17 Trial Tr. at 102, 112 (Conrad); PRX 21 at 8.)

1. Nursing and Allied Health

Nursing and Allied Health has long been a part of the "institutional mission and the legacy in nursing and the health professions that exists at Coppin State University." (1/24/17 Trial Tr. at 102-03 (Conrad).) Plaintiffs' remedial plan includes the following new and collaborative programs for this niche:

CIP	Level	Program Title	New	Desegregative Characteristics
26.0101	Masters	Biology and Life Sciences	New	
30.1101	Bachelors	Gerontology	New	
30.1101	Masters	Gerontology	New	
31.0505	Bachelors	Exercise Science	New	Extremely high demand
44.0701	Masters	Social Work	New	Extremely high demand
51.0701	Bachelors	Healthcare Administration	New	High demand
51.0701	Masters	Healthcare Administration	New	Extremely high demand
51.0706	Masters	Health Information Management	New	Proximate and statewide unique
51.1005	Bachelors	Clinical Research	New	
51.2211	Bachelors	Allied Health and Services	New	Extremely high demand
51.2211	Masters	Allied Health and Services	New	High demand
---	Masters	Nursing (joint w/ Morgan, UMB and Towson)	Collabor-ative	----

(*See* 1/24/17 Trial Tr. at 102, 112 (Conrad); PRX 21 at 8; PRX 353.)

Drs. Conrad and Allen chose the Nursing and Allied Health niche because it is high demand. Plaintiffs' experts identified the niche as high demand for three reasons. *First*, Dr. Conrad testified, "the whole field of healthcare administration, allied health services, those programs, as indicated on the chart, are either high demand on the continuum, very high demand, extremely high demand." (1/24/17 Trial Tr. 106 (Conrad).) According to Dr. Conrad, Maryland

offers "some of the highest concentration of healthcare jobs" in the U.S. Mid-Atlantic region as four of the top five states offering best pay for these occupations. (*Id.*) *Second*, the niche has the potential to provide students a wide range of diagnostic and therapeutic capabilities to support the care of patients and individuals seeking health assistance, and through experiential learning experiences both in the classroom and in the community. (*Id.* at 103.) *Third*, the niche aims to train students who are more likely to serve the needs of individuals in the Baltimore community. (*Id.* at 111-12.)

Drs. Conrad and Allen chose the proposed new programs based on their desegregative potential. Six of the eleven new programs are high demand or extremely high demand. One new program is proximate and statewide unique. Plaintiffs' experts chose the collaborative Masters in Nursing because it has the potential to "enrich/strengthen" the proposed niche in Allied Health by increasing cross fertilization among students, and making the overall institution more competitive. (*Id.* at 106.) The collaborative program in Nursing has the capacity to attract students of other races because "you could get some students at some of the other institutions, notably UMB and Towson, to consider meeting students and coming over and taking -- even taking a Master's degree and working with the nursing faculty and students at Coppin State. So there could be lots of different kind of combinations." (*Id.* at 105-06.) However, Dr. Conrad acknowledged that this collaborative program could only help desegregate Coppin "in a modest way," and emphasized that implementing new unique and/or high-demand programs in the Allied Health cluster remained crucial for attracting other race students. (*Id.* at 106.)

Coppin's President, Maria Thompson, and Chair of the Faculty Senate, Dr. Claudia Nelson agreed with Drs. Conrad and Allen's recommendations for a niche in Allied Health. President Thompson stated that "at Coppin, there is a high demand for these [nursing] programs

[g]iven that 20 to 25% of our enrollment is in that area, in the health sciences area, it's significant." (1/11/17 PM Trial Tr. at 55 (Thompson).) Dr. Nelson separately testified to Coppin's existing strength in Allied Health, stating that "when you hear 'nursing,' you can always hear people say Coppin is known for its nursing program." (11/10/16 Dep. Desig. at 105 (Nelson).) Referring to Plaintiffs' proposed new programs, President Thompson agreed that the "programs appear to be high-demand that would help do that [attract other race students]" (1/11/17 PM Trial Tr. at 95-96 (Thompson); 10/5/16 Dep. Tr. 186:21-25 (Thompson).). She also stated that there were "no accreditation issues that prevent us from offering these programs." (1/11/17 PM Trial Tr. at 96 (Thompson).)

The Allied Health niche should not have capital costs because Coppin already has a new Allied Health building. Dr. Conrad and Allen were able to predict the capital needs for the niche by looking at whether Coppin had existing capacity to house the niche, which they determined, Coppin to have. (2/21/17 AM Trial Tr. at 126 (Allen).) Dr. Allen noted that "there is a building that is already under construction . . . that we expect would, in conjunction with the rededicated space that is freed up when units move into the new building, ensure that there is more than enough space to accommodate and house the new programmatic niche or the expanded programmatic niche [in Allied Health.]" (*Id*.) Because the existence of a new building would eliminate capital costs, investments to the Allied Health niche would be based on enhancing the infrastructure Coppin already has.

To that effect, enhancements to the niche also have the potential to build Coppin's institutional identity, and in turn, desegregate the University. The suggested enhancements will be to the University's already existing "solid foundation" such as its physical facilities in the Allied Health Building. (1/24/17 Trial Tr. at 104-05 (Conrad).) However, given lack of access

to Coppin's administrators, Plaintiffs were not able to adequately project other resource needs such as funding for faculty and equipment. (*Id.* at 113; PRX 21 at 9.) Projecting accurate costs for resource needs would require collaboration with Coppin's administrators.

President Thompson also agreed that Coppin's existing programs in Allied Health required enhancements. She stated that the Allied Health niche would be more successful if additional programmatic enhancements included "laboratory expenses for running laboratories, as a start. And depending on how the curriculum is written, it could be software, instrumentation, [and] hardware." (1/11/17 PM Trial Tr. at 96 (Thompson); *see also* 11/10/16 Dep. Desig. at 109-10 (Nelson).) Dr. Nelson similarly agreed that "in terms of resources that are necessary for our programs to thrive, the ones that are existing and necessary for us to develop new programs" require "supporting facilities, supporting faculty development and increase in faculty, supporting scholarship to help us be more competitive in our offerings to students in terms of their packages, supporting research by faculty so that faculty could stay current, supporting the ability of the faculty to be innovative in the work that they do, and supporting the budget of departments." (11/10/16 Dep. Desig. at 72 (Nelson).)

2. Criminal Justice and Applied Social Sciences

The second niche Plaintiffs recommend is in Criminal Justice and Applied Social and Political sciences. (*See* 1/24/17 Trial Tr. at 107 (Conrad).) The proposed new and transfer programs are as follows:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
11.0401	Bachelors	Integrated Homeland Security Management	New	Extremely high demand
11.0401	Masters	Integrated Homeland Security Management	New	High demand
11.1003	Bachelors	Cybersecurity	New	Extremely high demand

11.1003	Masters	Cybersecurity	New	Extremely high demand
43.0106	Bachelors	Forensic Studies	New and Transfer (from UB)	High demand, Statewide and Proximate unique
43.0106	Masters	Forensic Studies	New	High demand, Statewide and Proximate unique
52.0201	Masters	Integrated Homeland Security Management	Transfer (from Towson)	High demand, Statewide and Proximate unique
43.0104	Bachelors	Criminal Justice	Transfer (from UMUC)	Extremely High demand, Statewide and Proximate unique
43.0106	Bachelors	Investigative Forensics	Transfer (from UMUC)	High demand
43.0106	Masters	Forensic Science	Transfer (from Towson)	High demand, Statewide and Proximate unique
43.0107	Bachelors	Criminal Justice	Transfer (from UB)	Extremely High demand, Statewide and Proximate unique
43.0107	Masters	Criminal Justice	Transfer (from UB)	
43.0116	Masters	Digital Forensics & Cyber Investigation	Transfer (from UMUC)	Statewide and Proximate unique

(*See* PRX 21 at 9-10; PRX 353.)

Dr. Conrad and Dr. Allen chose the Criminal Justice niche because it is high demand. They identified two reasons for the niche being high demand. *First*, as Dr. Conrad noted, careers in criminal justice and law enforcement are in high demand especially in a metropolitan city like Baltimore. (1/24/17 Trial Tr. at 108-09 (Conrad).) *Second*, the niche would adequately prepare students for a range of careers related to keeping society just and safe through extensive training in the enforcement of the law in concert with acquiring advanced skills ranging from cybersecurity to forensic techniques. (*See* PRX 21 at 9.)

Plaintiffs' experts chose the new and transfer programs, noted above, because they have desegregative potential. Dr. Conrad testified that he and Dr. Allen paid "great attention" in recommending transfers "that would help to create uniqueness . . . within the Baltimore region." (1/24/17 Trial Tr. at 110 (Conrad).) The six new proposed programs are either extremely high demand or high demand. One of these new programs is statewide and proximate unique. Six transfer programs are either high demand or extremely high demand. Six transfer programs are also unqiue.

President Thompson supported Plaintiffs' recommendation for a Criminal Justice niche. President Thompson's testimony suggested that building on Coppin's existing capacity as well as strengths in criminal justice would increase the institution's overall competitiveness and that the criminal justice niche "builds upon our current strength in this area," and "[i]f we're allowed to grow the programs, enhance our current programs, and give them a national reputation, I believe we would be able to attract more students." (1/11/17 PM Trial Tr. at 91 (Thompson).) Similarly, Dr. Nelson, who was responsible for writing Coppin's Proposal, testified that niches had the potential to set universities apart, and stated that "Coppin could be known for its . . . criminal justice [niche]. It could be known for its ability to look at social justice issues and have an institute that developed white papers." (11/10/16 Dep. Desig. at 103-04 (Nelson).)

The Criminal Justice niche would likely not require capital expenditures because Coppin already has existing capacity. Dr. Conrad testified that the niche would not need to be built from scratch, but would "complement" Coppin's "Bishop Robinson Institute, which is located on the campus for criminal justice." (1/24/17 Trial Tr. at 107 (Conrad).) President Thompson agreed that Coppin had the current capacity to offer a niche in Criminal Justice through the Bishop Robinson Institute, "put together by the faculty and the College of Behavioral and Social

Sciences to deal with, it's particularly urban justice issues." (1/11/17 PM Trial Tr. at 55 (Thompson).)

Enhancements to this niche have the potential to build Coppin's institutional identity, and in turn, desegregate the niche. Dr. Conrad suggested that additional enhancements may include funding for financial aid, faculty and staff hires, and laboratory start-up costs and computer technology, but was not able to adequately project these other resource needs given the lack of access to Coppin's administrators. (*See* PRX 21 at 10.)

3. Coppin's Proposal and its Connection to Plaintiffs' Recommendations

Coppin submitted a proposal for that is consistent with Plaintiffs' remedial proposal because it focuses on desegregation, and recommends new programs and enhancements consistent with Plaintiffs' two niches in Allied Health and Criminal Justice.

On September 28, 2016, Coppin submitted its proposal as an answer to Plaintiffs' Interrogatory 19. (*See generally* PRX 46 at 4.) The proposal was submitted by Coppin's Faculty Senate to provide meaningful input into the deliberations and decisions concerning the academic future of Coppin. (PRX 46 at 4-5.) President Thompson discussed how the proposal came about stating that once she received the request, she called the Chair of Coppin's Faculty Senate, Claudia Nelson. (1/11/17 PM Trial Tr. at 73 (Thompson).) She called a meeting of Coppin faculty and charged them with writing a response. (*Id.*) Led by Dr. Claudia Nelson, the Senate came up with the proposal suggesting new programs, transfers and enhancements comporting with Judge Blake's 2013 decision. (11/10/16 Dep. Desig. at 54 (Nelson).)

Coppin's proposal is consistent with Plaintiffs' proposal in certain respects. Dr. Nelson testified that "desegregation broadly is in [the proposal] because if you have solid quality, high-quality programs, people will want to come, no matter what their background is, because in the end, everybody is looking for the same thing." (*Id.* at 55.) She also stated that in writing the

proposal, she and members of the Faculty Senate "looked at what we had and looked at our colleges and looked at our environment and looked at the needs of the stated and looked at where we could meet those needs" and "talked about how could we develop niches that were going to not only be meaningful to us, we're academics, but that would contribute to the university strategic plan, the system's strategic plan, [and] the State." (*Id.* at 67.)

Coppin's Proposal aligns with Plaintiffs' recommendation because it suggests new programs that have a health-related focus and fit within the Allied Health niche. (*Id.* at 111.) For example, Coppin proposes 8 programs that are related to Health: these include a B.S. in Exercise Science and Physiology, B.S. in Gerontology, B.S. in Health Care Administration, B.S. in Clinical Research Administration, B.S. in Health Education, B.S. in Addiction Counseling, M.S. in Addiction Counseling and MSW in Social Work. (PRX 46 at 16, 24, 28, 30, 31, 33, 54, 61.) The proposal also has some overlap with Plaintiffs' recommendation for a Criminal Justice niche because Coppin proposes a B.S. in Cybersecurity. (*Id.* at 274.) This course focuses on fields such as forensics, intrusion detection, and hacking. (*Id*.) Similarly, Plaintiffs' Criminal Justice niche recommends programs in forensics and cybersecurity.

Plaintiffs' proposal is modest because it includes far fewer new programs than Coppin's proposal. Coppin's own proposal recommended adding five clusters of programs with a total of 46 new programs and enhancing 31 existing programs. (*Id*. at 10, 11-12.) Plaintiffs' proposal is modest because it includes far fewer new programs.

C. Morgan State

In 1975, the Maryland General Assembly passed legislation designating Morgan the State's "urban university" and giving the school doctoral granting authority. (2013 Op. at 12.) By 1981, representatives of Morgan testified at a special legislative session that Morgan's ability to develop programs had been hampered by Maryland's focus on having Morgan's programs be

"urban oriented." (*Id*. at 13.) In 1994, Morgan had only one doctoral program. (*Id*.) Today, the inventory of instructional programs at Morgan is not sufficiently developed to fuel the kind of research that consistently informs public policy and otherwise facilitates improvements in education, transportation, public safety, health, housing and overall ecology of urban communities. (PRX 312 at 23 ¶ 133.)

In order to enhance institutional identity at Morgan, Plaintiffs propose programmatic niches in (i) Business and Management; (ii) Urban Environment, Health, and Sustainability; and (iii) Engineering. The proposal recommends adding 23 new programs, of which 15 are high-demand and/or 8 proximately unique, 13 transfer programs, and enhancements that expand on Morgan's current programs. (1/24/17 Trial Tr. at 68-69 (Conrad); *see* PRX 21 at 2-7.)

Transfer programs play a special role in desegregating Morgan because they are specifically "triggered" by a history of State sanctioned duplication of Morgan's programs by UB and UMBC that is detailed below. (1/24/17 Trial Tr. at 69, 73-74 (Conrad); *see* 1/18/2017 PM Trial Tr. at 88-89 (Allen).) During trial, Morgan's current President, David Wilson, most recent past President, Dr. Earl Richardson, and recent former Dean of Engineering, Dr. Eugene DeLoatch, emphasized the importance of transfers citing to this complex history of program duplication as well as to the existing duplication in the Engineering niche. The duplication related to Morgan's MBA program was a significant component of the liability trial. The three niches are discussed in further detail below.

1. Business and Management

The Business and Management niche builds on Morgan's longstanding programmatic foundation in the niche, and additionally, reduces past unnecessary duplication. (*See* PRX 21 at 2.) Dr. Allen testified that Plaintiffs' remedial recommendations for the Business niche would mark a "return to the much more positive representation and higher representation of white

students in those programs similar to what was the case earlier on before unnecessary duplication of the business program at Morgan State." (1/18/2017 PM Trial Tr. at 81 (Allen).) Plaintiffs' propose the following new and transfer programs:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
52.0801	Masters	Finance	New	Extremely high demand
52.0203	Masters	Supply Chain Management	New	
52.1401	Masters	Marketing	New	Statewide and Proximate unique
52.1401	Doctorate	Marketing	New	Statewide and Proximate unique
22.0101 52.0101	Doc/Masters	Law & Business (joint with UB)	New	Extremely high demand, Statewide and proximate unique
52.0101	Masters	Business Administration (online MBA)	Transfer from UB	Extremely high demand
52.0301	Bachelors	Accounting	Transfer from Towson/UMUC	Extremely high demand
52.0301	Masters	Accounting and Business Advisory Services	Transfer from UB	High demand
52.0304	Masters	Accounting and Financial Management	Transfer from UMUC	High demand
52.0801	Bachelors	Finance	Transfer from UMUC	Extremely high demand

(*See* PRX 21 at 3; Program Inventory, PRX 353.)

Dr. Conrad and Dr. Allen chose the Business niche because "business has been, and clearly in our largely capitalist society, one of the most high-demand fields of study for many

years. And I think it is a very reasonable expectation that it will continue to be a very, very high-demand field of study." (1/24/17 Trial Tr. at 69 (Conrad).) However, even though Morgan has had a "long standing business program, it hasn't had very many programs at the graduate level" such as a Master's in Finance or Masters and Doctorates in Marketing and Supply Chain Management. (*Id.* at 73.) Therefore, according to Dr. Conrad, the goal of adding new programs at the Masters level is to "strengthen the niche and its identity" since the dearth of such programs detracts from the "visibility," and prominence of Morgan's current identity in Business. (*Id.*)

Plaintiffs' experts chose the new and transfer programs because a majority of them have desegregative potential. Two of the five new programs are extremely high demand, and three are statewide and proximate unique. Five transfer programs are either high demand or extremely high demand. One transfer is statewide and proximate unique. Another justification for transfers in the Business niche is their capacity to reduce the effects of past and ongoing duplication by the State. Dr. Conrad noted that transfers in the Business niche "would help reduce the duplication between the TBIs and the HBIs and give -- help to cultivate that institutional identity in this niche at Morgan State University." (*Id.* at 73-74.)

The history of duplication related to Morgan's MBA program is notable. (1/18/2017 Trial Tr. at 89 (Allen).) Morgan had a well-established and notable business program that attracted students of many races, with business being one of the most high demand fields of study. (1/24/17 Trial Tr. at 70-71 (Conrad).) In 1969, Morgan started an MBA program, and was the "only public institution in Baltimore that was offering the MBA." (1/17/17 AM Trial Tr. at 16-17 (Richardson).) As Dr. Richardson notes, "at that time Morgan had a very significant white enrollment in the business program. As a matter of fact, Morgan also had developed several graduate programs that had attracted significant numbers of white students. Of a

thousand students, for example, it was more than 50% white. But, those programs were primarily unique, high demand programs that appealed to a broad sector of students." (*Id.* at 17.)

In 1972, the State approved the University of Baltimore (UB), then a private institution, to offer an MBA. (*Id.*) In 1975, the State brought UB into the University System of Maryland, and "therefore, [UB] then became a second public institution." (*Id.*; 1/24/17 Trial Tr. at 70-71 (Conrad).) This State approved duplication of Morgan's MBA program had an "immediate impact on the enrollment in the business program [at Morgan]." (1/17/17 AM Trial. Tr. at 17 (Richardson).) As Dr. Conrad noted, between 1975 and 1985 when UB introduced its business program, "white enrollment over at Morgan plummeted . . . from 54 in 1975 to zero in 1985, respectively." (1/24/17 Trial Tr. at 71-72 (Conrad).)

In 2005, Maryland duplicated the program again with the introduction of the UB/Towson joint MBA despite the 2000 Partnership agreement between the State and the Federal Government which directed the State to avoid unnecessary program duplication and expand the missions of HBIs by placing unique, high-demand programs at these institutions. (*See* PRX 21 at 2; 1/24/17 Trial Tr. at 70-71 (Conrad); 1/9/12 AM Trial Tr. at 59 (Popovich); PTX 8.) The 2013 liability order noted that the development of the joint UB/Towson MBA in 2005, over Morgan's objection, "demonstrates the inefficacy of the State's current policy regarding duplication." (2013 Op. at 51.) Initially, OCR staff, HBI leaders and MHEC agreed that the new program at Towson would constitute unnecessary program duplication. (*Id*.) Yet, despite this agreement, on March 15, 2005, the Secretary of MHEC approved the program. (*Id*. at 51.)

The State's decision to approve the UB/Towson joint program had a detrimental impact on enrollment at Morgan. As Dr. Richardson noted, "Morgan's enrollment declined, I believe, from something in the neighborhood of about 250 students [in total] down to about 28 by the

time all of these duplications occurred." (1/17/17 AM Trial. Tr. at 18 (Richardson).) Although the program was terminated in 2015, Morgan's business program continues to be duplicated because UB's MBA program is still being offered. (PRX 21 at 2; 1/24/17 Trial Tr. at 71-73 (Conrad).) Dr. Wilson similarly noted that transfer of the UB business program to Morgan made sense because even though the UB/Towson MBA was discontinued, "UB would still be able to offer that program. And so we feel that that is still a duplication because Morgan's program has been in existence for decades and decades." (1/9/17 PM Trial Tr. at 39-40 (Wilson).) Dr. Wilson justified this transfer not only as an opportunity to eliminate duplication, but also an opportunity to be the one "MBA program" in the city of Baltimore. (*Id.*) Morgan's past history of duplication provides a strong basis for granting Plaintiffs' proposed transfer programs.

There would be no capital costs associated with the Business niche. Dr. Allen noted that there was no indication that there would be further capital costs for Morgan's Business niche because "the business school has a new building." (2/24/17 Trial Tr. at 128 (Allen).) Dr. Conrad emphasized that Morgan has the current capacity to offer this programmatic niche through its new Business school, the Earl Graves School of Business. (1/24/17 Trial Tr. at 69-70 (Conrad); 1/9/17 PM Trial Tr. at 111-12 (Wilson).) Morgan's proposal identified no capital costs associated with the Business niche. (PRX 402 at 13.)

Dr. Conrad and Allen suggested that the niche may require additional enhancements, such as recruiting more faculty, updating the niche with new technologies, and equipment. (PRX 21 at 3.) But, Plaintiffs' experts were not able to project costs of these other resource needs given lack of access to Morgan's administrators.

2. Urban Environment, Health and Sustainability

The niche in Urban Environment, Health and Sustainability, as Dr. Conrad recognized, would train its students on sustainable practices particularly in urban areas, job growth in green

sector, the fact that it builds on well-established programs at Morgan in city and regional planning and architecture, and the potential for synergies with current programs in other areas. (1/24/17 Trial Tr. at 77-78 (Conrad); PRX 21 at 4.) The new programs and a transfer program for the niche are as follows:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
01.1001	Bachelors	Food Science and Technology	New	High demand
01.1001	Masters	Food Science and Technology	New	
03.0104	Bachelors	Environmental Studies and Policy	New	High demand
03.0104	Masters	Environmental Studies and Policy	New	
51.0702	Masters	Health Care Administration	New	Extremely high demand
51.2202	Masters	Environmental Health/Management	New	Extremely high demand
51.2211	Masters	Health Policy and Management	New	High demand
51.2211	Doctorate	Health Policy and Management	New	
51.2299	Bachelors	Public Health	New	High demand
22.0101 03.0104	Doc/Masters	Law & Environmental Studies (joint w/UB)	New	Extremely high demand, Statewide and Proximate unique
52.0101	Doctorate	Community College Policy & Administration	Transfer (from UMUC as to out-of-state students)	Extremely high demand

(*See* PRX 21 at 4; PRX 353.)

Plaintiffs' experts chose the Urban Environment niche because it is high demand. Dr. Conrad noted that "[t]his is one of the most rapidly growing domains, interdisciplinary domains, but in higher education today, especially given that our population in this country is becoming so much more urban, moving into metropolitan/urban areas." (1/24/17 Trial Tr. at 76-77 (Conrad).)

Dr. Conrad and Allen focused on the new programs listed in the Table above because they have the potential to create institutional identity and desegregate Morgan. Seven of the ten proposed new programs are high demand or extremely high demand. (PRX 21 at 4.) One new program is also statewide unique. (*Id*.) Additionally, Dr. Conrad testified that the cross disciplinary nature of this niche, which combined synergies between programs like Food Science, Environmental Studies and Public Health would "elevate, frankly, [Morgan State's] status and their attractiveness for students of all races and I think in the short term [and] in the long-term future." (1/24/17 Trial Tr. at 78-79 (Conrad).)

Dr. Conrad and Allen chose the transfer program in Community College Policy and Administration because it has the potential to bring in more diverse students. (PRX 21 at 5; PRX 353.) In 2009, UMUC proposed a comparable "blended" program offering online and face-to-face classes. (PRX 402 at 27.) MHEC had originally agreed that the UMUC program was "broadly similar" to the program at Morgan, but approved it to be offered only to out-of-state residents at UMUC. (1/24/17 Trial Tr. at 80-81 (Conrad).)

President Wilson agreed with Plaintiffs' proposal to transfer the program. Addressing MHEC's decision, President Wilson stated, "I personally could never understand this arrangement. And in the vernacular it doesn't make very much sense to me that you basically have taken a program that Morgan was offering for years in a face-to-face environment. If indeed there were a demand now to place the program online, that consideration should have been given to providing resources to the institution that has already been offering this program for decades, to now move it into an online format and to basically enroll students [at Morgan] both in state and out of state." (1/9/17 PM Trial Tr. at 42 (Wilson).)

There may be some minor capital costs associated with the Urban Environment niche given that Morgan's proposal identified that facility costs for the most similar niche would be $1.365 million. (PRX 402 at 21.) According to, Dr. Allen, Morgan had the current capacity to house the niche. (2/21/17 Trial Tr. at 128 (Allen).) Dr. Allen further elaborated that "it is not at all uncommon for programs to launch within the existent space and to establish themselves and to grow in that space." (*Id.* at 128.)

Enhancements to this niche would also help create institutional identity and in turn, desegregate Morgan. Additional enhancements such as new technologies, equipment and faculty may be needed, but Plaintiffs were not able to adequately project other resource needs given lack of access to HBI administrators. (1/24/17 Trial Tr. at 96-97 (Conrad); PRX 21 at 5.) Determining additional resources for the Urban Environment niche would require collaboration with HBI administrators.

3. Engineering

Plaintiffs' proposed Engineering niche at Morgan "advances significantly MSU's mission as an urban research university." (1/24/17 Trial Tr. at 83 (Conrad).) Dr. Conrad testified that "it just doesn't have that identity in engineering at the graduate level." (*Id.* at 84.) According to Dr. Conrad, the Engineering niche would be a "wonderful opportunity to build on the foundation that they have, especially at the undergraduate level and building on that at the graduate level consonant with its identity as an urban research university." (*Id.* at 83.) The new and transfer programs for the Engineering niche are as follows:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
11.0401	Masters	Information Systems	New	Extremely high demand
11.0401	Doctorate	Information Systems	New	

14.1001	Doctorate	Electrical Engineering	New and Transfer (from UMBC)	Extremely high demand
14.0801	Masters	Civil Engineering	New	High Demand
14.0801	Doctorate	Civil Engineering	New	High Demand
22.0101 14.0101	Doc/Masters	Law & Engineering (joint w/UB)	New	Extremely high demand, Statewide and Proximate unique
14.0801	Masters	Environmental Engineering	Transfer (from UMBC)	High Demand
14.0801	Doctorate	Environmental Engineering	Transfer (from UMBC)	High Demand
14.0901	Bachelors	Computer Engineering	Transfer (from UMBC)	High demand
14.0901	Masters	Computer Engineering	New and Transfer (from UMBC)	Statewide and Proximate unique
14.0901	Doctorate	Computer Engineering	New and Transfer (from UMBC)	Statewide and Proximate unique

(*See* PRX 21 at 6-7; PRX 353; DRE 96.)

Two principal justifications exist for the Engineering niche. *First*, as Dr. Conrad noted, Engineering is a high demand, growing STEM field, "electrical and civil [engineering] in particular." (1/24/17 Trial Tr. at 83-84 (Conrad).) *Second*, though Morgan has a longstanding foundation in Engineering, it does not have enough graduate programs to round out its Engineering niche. (*Id.* at 84.) Therefore, Plaintiffs' proposal focuses on building a well-rounded niche in Engineering through a series of new programs and transfers across degree levels. (*Id.* at 83.)

Dr. Conrad and Allen chose the new and transfer programs mentioned above because they have desegregative potential. Five of the eight new programs are either high demand or extremely high demand. (*See* PRX 21 at 6-7.) Two new programs are statewide and

proximately unique. (*Id*.) Additionally, three of the transfer programs are high demand programs. (PRX 353.) Four of the five transfers would be unique statewide. (*Id*.)

Another reason Dr. Conrad and Allen chose the transfer programs, in particular, was because they address the effects of a history of duplication between Morgan and UMBC, namely, the State's decision to split engineering specialties between the two institutions, which denied Morgan the ability to develop a complement of engineering programs in all six engineering fields. President Wilson supported Plaintiffs' suggested transfers. As President Wilson stated, the impact of transferring programs would "lead to greater diversity with the engineering school at Morgan and would create an opportunity in the region where, if individuals wanted to get a degree in computer and electrical engineering, they would have it under that umbrella." (1/9/17 PM Trial Tr. at 41 (Wilson).)

The history of State sanctioned duplication in Engineering merits attention. The State prevented Morgan from being able to offer a comprehensive set of engineering programs by duplicating these same programs at UMBC. This history of duplication has been at odds with the State's goal of desegregating Morgan's engineering program. (PRX 16 at 28.) In 1947, the American Council on Education recommended that engineering programs be established at Morgan, although it took until the 1980s for the State to approve the first engineering programs at Morgan. (PRX 21 at 5.)

In 1966, the State established UMBC instead of desegregating Morgan. (1/24/17 Trial Tr. at 86-87 (Conrad).) In the early 1980s, both UMBC and Morgan sought engineering programs. In June 1983, the State Board for Higher Education, a predecessor of MHEC, adopted a resolution that rejected UMBC from being able to offer Engineering programs, while providing that Morgan would be able to offer programs if it met certain conditions. (PRX 17 at 12.) The

Board cited two reasons for its rejection. *First*, it cited the impracticability of trying to establish quality programs at the same time given limited resources. (*Id.* at 2.) *Second*, it raised segregative effect concerns. Having engineering programs at the two schools would create unnecessary program duplication as it would "conflict with the intent of the State's effort, which seeks to encourage students to choose a particular campus on some basis other than race." (*Id.*)

However, in a November 1983 Resolution, the Board amended its June decision, and decided to establish engineering programs at both UMBC and Morgan by splitting engineering specialties between the two institutions. (PRX 18 at 3; 1/24/17 Trial Tr. at 87 (Conrad).) Morgan was approved to offer undergraduate programs in electrical, civil and industrial engineering, while UMBC was authorized to offer chemical, mechanical and biologically-related engineering as extensions of the UMCP College of Engineering. (PRX 18 at 3.) The Board also allowed UMBC to offer "cooperative graduate programs with College Park." (*Id*.) The Board felt that the UMCP-UMBC "inter-campus cooperation . . . [would] best serve the entire State." (*Id*.) The Board also denied UMBC's request for a program in Computer Engineering at that time (which MHEC would overturn in the 1990s) because it would duplicate Morgan's program in Electrical Engineering. (*Id.*)

The Board's decision detrimentally affected Morgan. According to Dr. Richardson, the Board's decision "foreclosed the opportunity for Morgan, then, to develop a graduate education in the basic degrees and disciplines in engineering for some time." (1/17/17 AM Trial Tr. at 38 (Richardson).) The decision was also a part of the Board's "strategy of using the University of Maryland College Park to incubate the programs at the master's and doctoral level at UMBC." (*Id.* at 40.) The decision gave UMBC a head start in offering engineering programs at the graduate level, meaning that "because of the arrangement with College Park, they [UMBC]

could begin immediately to offer the doctorates and the graduate at UMBC because it was really being offered by College Park at the UMBC campus" without having to become accredited. (*Id.* at 41.) In contrast, Morgan was required to follow the traditional accreditation process in which "before building up the undergraduate programs at the University, the process itself demands that you graduate your first class before it is accredited." (*Id.* at 41.) Morgan's first classes were offered in 1984, and thus, it took until 1989 for Morgan's engineering programs to become accredited, while UMBC was able to offer graduate and doctoral programs from the inception of the cooperative program in 1983. (*Id.* at 41.) The Board's decision became the "precursor to a lot of debate and contention between Morgan and the University of Maryland and the Maryland Higher Education Commission." (*Id.* at 38.)

Dr. DeLoatch, who was hired in 1984 to begin to develop Morgan's Engineering school remarked that if a student wanted, at the time, to take a graduate engineering program at a public school in Baltimore, "[t]hey would take the satellite program from UMCP, which is located at UMBC." (1/12/17 AM Trial Tr. at 53 (DeLoatch).) Dr. DeLoatch also testified that UMCP-UMBC collaborative functioned as a "holding action" for undergraduates, in which "some 700 students who wanted to be engineers, but they could not get into College Park were put into something called the two-year pre engineering program" and would be pulled from UMBC to fill vacancies left by weed-out students who had been directly admitted to the College Park engineering program and dropped out. (*Id.* at 60-61.) The impact of this two year pre engineering program was that "some students chose not to come to Morgan State." (*Id.* at 61.)

The 1990s marked a continuation of the history of duplication from the 1980s. By the early 1990s, UMBC (through UMCP) offered 11 graduate programs in engineering including degrees in environmental engineering which are similar to civil engineering. (1/24/17 Trial Tr.

at 87-88 (Conrad).) In March 1992, the Maryland Higher Education Commission recommended in its Engineering task force that the Board of Regents establish a "separate and independent School of Engineering" at UMBC that would offer undergraduate degrees in chemical, mechanical and electrical engineering. (PRX 434 at 42.) The State adopted many of the recommendations forwarded in MHEC's 1992 Task Force Report.

By the early 1990s, UMBC (through UMCP) offered 11 graduate programs in engineering including degrees in environmental engineering which are similar to civil engineering. (1/24/17 Trial Tr. at 87-88 (Conrad).) In May 1992, Morgan prepared objections against the MHEC Task Force Report stating that "program duplication is an impediment to Morgan's development and a drain on the scarce state resources." (PRX 19 at 12.) In June 1992, Morgan published another set of objections that echoed the May 1992 objections. (PRX 20 at 43-44.) According to Dr. Richardson, Morgan's principal objections in the two recommendations were that the duplication of programs at UMBC would have an impact on Morgan's ability to desegregate, making it difficult for Morgan to attract white students. (1/17/17 AM Trial Tr. at 44-45 (Richardson).)

Despite Morgan's objections, the State ultimately approved UMBC to offer programs in computer engineering (a subset of electrical) and environmental engineering (a subset of civil engineering) as part of UMBC's new school of engineering. (1/12/17 AM Trial Tr. at 62 (DeLoatch).)

The impact of prior duplication is still felt today because UMBC offers a larger set of Engineering programs compared to Morgan. (*Id.* at 68.) Dr. Richardson and Dr. DeLoatch explained that a key reason Morgan offers fewer and more general Engineering programs, as opposed to UMBC's more specialized programs is because Maryland Higher Education

Commission denied Morgan's request to develop Masters and Doctorates in Electrical, Civil and Industrial Engineering on the ground that "it would represent a duplication of programs." (1/17/17 AM Trial Tr. at 39 (Richardson); 1/12/17 AM Trial Tr. at 68-69 (DeLoatch).) The Masters in Engineering and a general Doctor in Engineering differs from a traditional Doctorate in Philosophy because it "moves toward the applied areas for engineering," instead of "more research oriented" fields. (1/17/17 AM Trial. Tr. at 39 (Richardson).) According to Dr. DeLoatch, one effect of these general engineering courses is that it prevents Morgan from having a full complement of programs across degree levels in all six engineering fields. Discussing graduate specialties in more detail, Dr. DeLoatch remarked that it would have been "preferable to have a Master's of Science in Electrical Engineering and a PhD in Electrical Engineering" in lieu of a generalized program in Engineering. (1/12/17 AM Trial Tr. at 68 (DeLoatch).) The current programmatic offerings -- which demonstrate UMBC's superior program offerings -- are as follows:

UMBC	Morgan
Computer Engineering (B.S.)	Engineering (B.S.)
Computer Engineering (M.S.)	Engineering (M.S.)
Computer Engineering (Ph.D)	Engineering (Ph.D)
Electrical Engineering (M.S.)	Electrical Engineering (B.S. offered in person and online)
Electrical Engineering (Ph.D)	Electrical Engineering (M.S. offered online only)
Business Technology Administration (B.A.)	Civil Engineering (B.S.)
Engineering Management w/UB (M.S.)	Industrial Engineering (B.S.)
Chemical Engineering (B.S.)	Urban Transportation Systems (B.S.)
Chemical and Biochemical (M.S.)	Urban Transportation Systems (M.S.)

Chemical and Biochemical (Ph.D)	Urban Transportation Systems (Ph.D)
Environmental Engineering (M.S.)	
Environmental Engineering (Ph.D)	
Human-Centered Computing (M.S.)	
Human-Centered Computing (Ph.D)	
Systems Engineering (M.S.)	
Information Systems (B.S.)*	
Information Systems (M.S. in person and online)*	
Information Systems (Ph.D)	
Mechanical Engineering (B.S.)	
Mechanical Engineering (M.S.)	
Mechanical Engineering (Ph.D)	
Computer Science (Ph.D)	
Computer Science (M.S.)	
Computer Science (B.S.)	

(*See* PRX 353 (for list of current engineering programs); *see also* PRX 435 as amended by Dr. DeLoatch's corrections to the number of current Engineering programs offered at Morgan; 1/12/17 AM Trial Tr. at 64-65 (DeLoatch).) The UMBC programs accompanied by an asterisk were not listed in PRX 353 but appear on UMBC's website. (*See* http://coeit.umbc.edu/degree-programs/.)

Additionally, significant overlaps exist between Morgan and UMBC's engineering programs -- defeating the State's initial plan for reducing unnecessary program duplication through the splitting of Engineering specialties. Dr. Conrad and Dr. DeLoatch both testified that

Morgan's Bachelors and Masters in Electrical Engineering overlaps with UMBC's Bachelors in computer engineering because computer engineering is a subset of electrical engineering. (1/12/17 AM Trial Tr. at 70 (DeLoatch); 1/24/17 Trial Tr. at 90 (Conrad); *see also* PRX 449.) This overlap occurred when UMBC was given approval to offer Computer Engineering in 1997, when Morgan already offered a concentration in Computer Engineering under the subset of Electrical Engineering. (1/17/17 PM Trial Tr. at 8 (Richardson); 1/24/17 Trial Tr. at 90 (Conrad).) Also, Drs. DeLoatch, Conrad, and Richardson testified that UMBC's Environmental Engineering overlaps with Morgan's Civil Engineering. (1/12/17 AM Trial Tr. at 41 (DeLoatch); 1/24/17 Trial Tr. at 90 (Conrad); 1/17/17 AM Trial Tr. at 35 (Richardson).) On that point, Dr. Richardson further elaborated that environmental and water resources are significant components of Civil Engineering. (1/17/17 AM Trial Tr. at 35 (Richardson).)

In light of the effects of ongoing duplication, transferring programs from UMBC to Morgan is crucial for desegregation. President Wilson testified that he believed engineering transfers "would lead to greater diversity with the engineering school at Morgan." (1/9/17 PM Trial Tr. at 41 (Wilson).) Dr. Richardson testified that "if they [UMBC's engineering programs] were transferred such that the program at Morgan was built to be bigger and stronger, to reach critical mass and viability, I think it would increase other-race students, it would contribute to the enhancement of the university." (1/17/17 AM Trial. Tr. at 68 (Richardson).)

There may be some capital costs associated with this niche. Morgan's proposal identified a one-time facility expenditure of $56 million. (PRX 402 at 12.) Dr. Conrad stated that Morgan has the current capacity to house a larger, well-rounded Engineering niche in its two new Engineering buildings on campus. (1/24/17 Trial Tr. at 96-97 (Conrad).)

Enhancements to the Engineering niche also have the potential to maximize desegregative potential. While Dr. Conrad and Allen proposed enhancements related to new equipment and faculty, they were not able to adequately project these other resource needs given the lack of access to Morgan's administrators. (1/24/17 Trial Tr. at 96-97 (Conrad).) This would require collaboration with the Morgan's administrators.

4. Morgan's Proposal and its Connection to Plaintiffs' Recommendations

Plaintiffs' proposal overlaps significantly with Morgan's proposal because it recommends the three niches that Morgan has identified, similar new programs, transfer programs and enhancements.

On October 7, 2016, Morgan filed its proposal as an answer to Plaintiffs' Interrogatory 19. (*See* PRX 402 at 4.) Dr. Wilson testified that Morgan began developing its proposal shortly after Judge Blake issued her order in October 2013. (1/9/17 PM Trial Tr. at 27-28 (Wilson).) Dr. Wilson recalled assembling faculty during a day-long meeting to "think about what the judge had ordered us to think about, which was how do you prevent further program duplication." (*Id.*) At the conclusion of the meeting, Morgan's faculty were divided into groups, and began furthering the "well--thought--out process" for building "clusters of programs that we think would, once again going back to the order, would expand the mission, enhance the mission of the institution, would create unique, high demand programs that would drive different students to the institution, and that would be non-duplicative." (*Id.* at 28-29.) Dr. Wilson used the concept of "cluster" and "niche" synonymously, to represent a vehicle for implementing institutional identity. (*Id.* at 31.)

Similar to Plaintiffs' proposed niche in Business, Morgan's proposal identifies a need for a "cluster" of programs in the area of Business and Entrepreneurship. (PRX 402 at 12-13; 1/9/17

PM Trial Tr. at 39-40 (Wilson).) Morgan's proposal recommends adding new doctoral programs in Marketing, Finance, and Supply Chain Management. (*See* PRX 402 at 12.) The proposals are also consistent in that they advocate for addition of new programs at the graduate (Masters and Doctoral) level because, as Dr. Conrad acknowledged, the inclusion of more graduate programs would help create a comprehensive niche in Business. (1/24/17 Trial Tr. at 73 (Conrad); *see* PRX 402 at 12.) Morgan's proposal also contemplates transfer of UB's MBA to Morgan. (*See* 1/24/17 Trial Tr. at 69-70 (Conrad).)

Like Plaintiffs' niche in Urban Environment niche, Morgan proposes a significantly overlapping niche in Urban Sustainability, Energy and Environment. Both niches are cross-disciplinary and broadly focus on environmental studies and sustainability practices including in areas of public health. (*See* PRX 402 at 19-20.) The emphasis on the environment is evident given that Morgan envisions "energy and sustainable built environmental studies, sustainable preservation, built environment informatics, and sustainable environmental design and policy" in this niche. (*Id.*) Morgan intends that its niche train "future urban planners who possess an array of skills that cross traditional disciplinary boundaries." (PRX 402 at 19.) Dr. Conrad similarly testified that the niche would prepare students for jobs in the green sector and in urban sustainability, one of the "most rapidly growing domains, interdisciplinary domains, but in higher education today, especially given that our population in this country is becoming so much more urban, moving into metropolitan/urban areas." (1/24/17 Trial Tr. at 76-77 (Conrad).)

Morgan's proposal also identifies the need to transfer the Doctoral program in Community College Leadership from UMUC to Morgan as a way of increasing white and other race enrollment. (PRX 402 at 27.) Current white enrollment in UMUC's program is 63 white students, 45.65% of total enrollment in the program. (PRX 353.) Morgan's proposal states that

currently 35 percent of Morgan's enrollees in the program take it exclusively online or through a combination of face-to-face and online classes. (PRX 402 at 27.) Twenty-eight percent of total students in the program are from out-of-state. (*Id.*) Thus, like Plaintiffs' remedial plan, Morgan's proposal recommends transfer as it would increase white enrollment by allowing the out of state students who currently take the course at UMUC to take it in a blended program at Morgan instead. (*Id.*)

Similar to Plaintiffs' niche in Engineering, Morgan proposes the Engineering, Cybersecurity and Big Data clusters in order to prepare a skilled cohort of engineers who can contribute to Maryland's growing need for engineering professionals in an era where data storage, cyber security are "invaluable" to the functioning of the local economy. (*Id.* at 11.) Like Plaintiffs' plan, Morgan's proposal recommends adding new academic programs, transferring programs, and enhancing its core engineering programs. *(Id*.) Morgan proposes adding many of the same programs that Plaintiffs have put forth: Masters and Doctorate in Civil Engineering, Doctorate in Electrical Engineering, Bachelors, and Masters and Doctorate in Computer Engineering. (*Id*.) Although Morgan's proposal goes as far as suggesting a complete transfer of UMBC's engineering programs to Morgan, it identifies the same duplicative programs that Plaintiffs have suggested for transfer, including the Masters and Doctorate in Electrical Engineering from UMBC, and Masters and Doctorate in Civil Engineering from UMBC. (*Id* at 26.) Additionally, similar to Plaintiffs' proposal, Morgan recommends housing the Engineering niche to Morgan's current capacity in its two new Engineering buildings. (*Id*. at 11.)

Morgan's proposal is far more extensive than Plaintiffs' comparatively modest recommendations. Morgan proposes 10 clusters of programs compared to Plaintiffs' 3 clusters.

Morgan also envisions many enhancements to current programs within its niches, as well as to its operating costs, faculty hires and physical facilities. (*See* PRX 402 at 5-7.) Morgan also envisions creating Centers and Institutes that specialize in different fields. Referring to the 10 proposed clusters at Morgan, Dr. Wilson acknowledged, "there was no limitation placed on the thinking of the faculty in terms of how we could position the institution to strengthen our mission, to think about programs." (1/9/17 PM Trial Tr. at 45-46 (Wilson).) However, Dr. Wilson repeatedly emphasized that despite differences between the proposals, Plaintiffs' remedial plan was aligned with the overall thinking at Morgan. (*Id.*)

D. UMES

UMES is a public, land-grant university that was established in 1886. In their report, Dr. Allen and Dr. Conrad noted that UMES is the state of Maryland's 1890 land-grant university. (PRX 312 at 24 ¶ 136.) Due to its status as a land-grant institution, UMES tailored its mission to adequately address the unique demands of the farming community in which it is located. (*Id.*) However, due to a lack of fully developed academic programs, particularly in areas like agriculture and engineering, UMES has not yet achieved its full potential as a land-grant university. (*Id.*) Dr. Allen elaborated on the history of land-grant institutions during his testimony, and he expressed that "the impetus for the land-grant movement and funding for those institutions was to provide centers of agricultural, technological, and scientific development in the states to assist with those states' development." (1/18/17 PM Trial Tr. at 50 (Allen).)

Plaintiffs propose the following programmatic niches for UMES: (i) Engineering and Aviation Sciences; (ii) Agricultural and Environmental Sciences; and (iii) Pharmacy and Health Professions. (*See* PRX 21 at 11-14.) Dr. Allen and Dr. Conrad crafted these recommendations with the land-grant status and physical location of UMES in mind. The programs contained within these three recommended programmatic niches offer desegregative potential for UMES,

and they will bolster its academic reputation. Through these three proposed programmatic niches at UMES, Dr. Allen and Dr. Conrad recommended the creation of nineteen new programs at the institution, all of which are proximately unique and seven of which are high-demand; the experts did not include any transferred programs in the niches that they proposed for UMES. (1/18/17 PM Trial Tr. at 50 (Allen).) As a part of their remedial proposal, and as previously mentioned, Dr. Allen and Dr. Conrad proposed three programmatic niches for UMES: the engineering and aviation sciences niche, the environmental and agricultural sciences niche and the pharmacy and health professions niche.

1. Engineering and Aviation Sciences

The proposed engineering and aviation sciences niche at UMES creates four new programs and does not include any transferred programs. The following table reflects the four new programs under this niche:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
14.0201	Bachelors	Aerospace Engineering	New	Extremely High-Demand, Proximate Unique
14.0801	Bachelors	Civil Engineering	New	Extremely High-Demand, Proximate Unique
14.1001	Bachelors	Electrical Engineering	New	Extremely High-Demand, Proximate Unique
14.1901	Bachelors	Mechanical and Industrial Engineering	New	Extremely High-Demand, Proximate Unique

(PRX 21 at 12; PRX 353.)

The expert report authored by Dr. Allen and Dr. Conrad acknowledges that, to a certain extent, the infrastructure to support the proposed niche in engineering and aviation sciences already exists; UMES opened an engineering building in the first half of 2016 to support this proposed programmatic niche. (*Id*.) When asked about this building at trial, Dr. Bell asserted that, as it currently stands, the new engineering building only hosts one general engineering academic program. (1/10/17 PM Trial Tr. at 40 (Bell).)

Dr. Allen testified about the engineering and aviation sciences niche for UMES during the remedial phase of the trial. He acknowledged the land-grant status of UMES, and he asserted that robust engineering programs are typically associated with universities that have this designation. (1/18/17 PM Trial Tr. at 51 (Allen).) He also noted that engineering had been designated as a state priority, and it was also identified as an area of growth for the state. (*Id*.)

Consistent with Plaintiffs' expert proposal, Dr. Bell testified that, with the proper resources and expansion, UMES could develop a cluster of aviation and engineering programs that would attract many more students to the school. (1/10/17 PM Trial Tr. at 40 (Bell).) This academic enhancement would primarily involve the development of the current concentrations in the general engineering program into stand-alone programs within the academic offerings of the institution. (*Id*. at 60.) To provide further support to this tenet of the UMES proposal, and as indicated by Dr. Allen, the enhancement of the engineering program at UMES would align with the institution's mission as a land-grant university. (1/18/17 PM Trial Tr. at 51 (Allen).)

Of note, there would be no capital costs associated with the engineering niche. During the rebuttal, Dr. Allen pushed back on Dr. Lichtman's projections of capital costs related to the engineering niche at UMES; Dr. Lichtman asserted that funds would have to be dedicated to

building a new engineering facility, and Dr. Allen responded by noting that an engineering building is already in place at UMES. (2/21/17 Trial Tr. at 126 (Allen).)

Dr. Bell testified about the current nature of the engineering program at UMES and articulated her desire to develop separate engineering programs. In this regard, the enhancements to the engineering program would be welcomed by Dr. Bell and her administration. (1/10/17 PM Trial Tr. at 40-41 (Bell).) Well-developed engineering programs would provide another avenue for UMES to reach its full potential as an 1890 land-grant university.

2. Environmental and Agricultural Sciences

The proposed environmental and agricultural sciences niche at UMES entails the adoption of eight new programs and does not include any transferred programs.

The following table demonstrates the proposed programs for this niche at UMES:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
01.1001	Bachelors	Food Science and Technology	New	High-Demand, Proximate Unique
03.0101	Bachelors	Environmental Management	New	Extremely High-Demand, Proximate Unique
03.0103	Masters	Environmental Sciences	New	Proximate Unique
03.0103	Doctorate	Environmental Sciences	New	Proximate Unique
51.2401	Doctorate	Veterinary Medicine	New	Extremely High-Demand, Proximate Unique
51.2499	Bachelors	Veterinary Technology	New	Statewide and Proximate Unique
51.2499	Masters	Veterinary Technology	New	Statewide and Proximate Unique
51.2501	Masters	Veterinary Medical Sciences	New	Proximate Unique

(PRX 21 at 13; PRX 353.)

During the remedial trial, Dr. Allen discussed the justification for the environmental and agricultural sciences niche at UMES. He noted that the university is located in a key agricultural center of the state, and that places UMES in a position to lead the state in confronting environmental challenges that continue to evolve in the twenty-first century. (1/18/17 PM Trial Tr. at 56 (Allen).) Dr. Allen also stressed the niche's role in allowing UMES to expand its interdisciplinary fields, particularly those related to renewable and sustainable sources of energy, to further its land-grant mission. (*Id*. at 57.)

In supporting its ability to house a niche in environmental and agricultural sciences, UMES noted that its position as a land-grant university with extension services, as well as its location in the state that boasts a significant amount of agriculture, places it in a strong position to house a niche of this type. (PRX 2 at 8.) During her testimony for the remedial phase of this litigation, Dr. Bell also cited the strong interest of the U.S. Department of Agriculture and the agribusiness community in building a stronger agriculture program at UMES. (1/10/17 PM Trial Tr. at 52 (Bell).) The creation of this programmatic niche at UMES would both support its physical location in the state and, in the same fashion as the engineering niche, its mission as a land-grant institution.

From Dr. Allen's perspective, the doctorate in veterinary medicine, within the environmental and agricultural sciences niche, would be the only program to truly incur a capital cost at UMES. (2/21/17 Trial Tr. at 126-27 (Allen).) In its proposal, UMES provided $75 million capital cost for a new building. (PRX 2 at 10.) However, Dr. Allen expressed the magnitude of this cost be determined by the size of the animals examined by students, and he noted that there is existing laboratory space on campus to accommodate such a program. (2/2/17

Trial Tr. at 127 (Allen).) To bring this point home, Dr. Allen asserted that it is not at all uncommon for programs to launch within an existing space and grow from there. (*Id*. at 128.)

Dr. Bell also acknowledged the importance of strong agriculture programs for UMES. She identified this area as one that is imperative for a land-grant institution like UMES, and she sees this as an area that is well-worth enhancing. (1/10/17 PM Trial Tr. at at 50 (Bell).) In her opinion, the environmental and agricultural sciences niche aligns with an existing strength of UMES and provides a strong opportunity for growth.

3. Pharmacy and Health Professions

The proposed pharmacy and health professions niche at UMES includes seven new programs and no transferred programs. The following table shows the seven proposed new programs for this niche:

CIP	Level	Program Title	New or Transferred	Desegregative Characteristics
19.0505	Masters	Nutrition	New	Proximate Unique
42.0101	Masters	Rehabilitation Psychology	New	High-Demand, Proximate Unique
51.2201	Bachelors	Community Health/Public Health	New	Proximate Unique
51.2201	Masters	Community Health/Public Health	New	High-Demand, Proximate Unique
51.2306	Bachelors	Occupation and Well-Being	New	Extremely High-Demand, Proximate Unique
51.2306	Masters	Occupation and Well-Being	New	Extremely High-Demand, Proximate Unique
51.2306	Doctorate	Occupation and Well-Being	New	Proximate Unique

(PRX 21 at 14; PRX 353.)

Dr. Allen and Dr. Conrad considered the existing strength of these programs at UMES in drafting their remedial proposal; they specifically note that "[t]he fields of Pharmacy and Allied Health are well-established at UMES, with both programs having strong regional *and* national reputations." (PRX 312 at 172.) Dr. Allen offered support for this niche by noting that UMES has been recognized for having an established strength in this area, and it fits within the institutional mission of UMES by providing an avenue for the university to address those in the Eastern Shore community who are underserved in terms of health. (1/18/17 PM Trial Tr. at 61 (Allen).) Through the pharmacy and health professions niche, Dr. Allen and Dr. Conrad sought to establish a focus on public health that complimented the institution's existing programs and adequately addressed the needs of the community in which UMES is located. (*Id*. at 63.)

With regard to the capacity of UMES to cultivate a niche in pharmacy and the health professions, its response to Interrogatory 19 indicates that the institution houses one of twelve programs in the nation that leads to an accelerated three-year doctoral degree in pharmacy. (PRX 2 at 4.) Additionally, the publication *Diverse Issues in Higher Education* has commended UMES for its ability to graduate high numbers of students of color from programs in rehabilitation therapy, pharmacy and biomedical sciences. (*Id*.) UMES physical therapy program graduates typically achieve a 100% passage rate on the licensure examination for the profession. (*Id*.) Additionally, during her testimony at the remedial phase of the trial, Dr. Bell noted that a "pharmacy and health professions building has been placed…in the governor's queue for funding, for FY'17." (1/10/17 PM Trial Tr. at 43 (Bell).) She subsequently indicated that UMES is expecting the second half of its planning money for 2018, and the building is scheduled for construction in either 2020 or 2021. (*Id*.)

Concerning the capital costs associated with this niche, Dr. Allen stated that a building is currently under construction to support it as well as to support the expansion of the institution's programs in pharmacy and the health professions. (2/21/17 Trial Tr. at 126 (Allen).) Once this building is completed, this niche will have adequate support to sustain itself and grow as a reasonable pace. Of note, UMES proposed a similar niche with no capital cost. (*See* PRX 2.)

Given the institution's successes in this program area, Dr. Bell testified enhancements would certainly be beneficial for the university's pharmacy and health professions programs. (1/10/17 PM Trial Tr. at 56 (Bell).) As discussed in the preceding paragraph, the current infrastructure supports it, and it represents an area that UMES can use to build a strong institutional identity, particularly as compared to its regional counterpart, Salisbury, and its other land-grant competitor, the University of Maryland College Park.

4. UMES Proposal and Its Connection to Plaintiffs' Recommendations

Broadly concerning the process that UMES took in response to the court's finding of unnecessary program duplication, Dr. Bell testified that she collaborated with other HBI presidents in developing programs that would benefit the four institutions. (1/10/17 PM Trial Tr. at 6-7 (Bell).) She continued her testimony by noting that she and the three other HBI presidents strived to identify programmatic enhancements and programs that would make the schools more competitive. (*Id*.) This process originated with a request from MHEC, asking the four presidents to draft a 10-year plan that focused on key campus improvements and program enhancements for the HBIs. (*Id.*) Although this plan was completed and submitted to MHEC, UMES never received a response from the commission. (*Id.* at 9.)

In the current litigation, UMES drafted a response to Interrogatory 19 and demonstrated its institutional alignment with the programmatic niches recommended by Dr. Conrad and Dr. Allen. The UMES proposal evolved from the 10-year plan that was submitted to MHEC, and the

proposal reflected years of vetting from different groups on the campus. (*Id.* at 32-33.) In compiling this response, UMES gathered input from cabinet-level university employees, deans, academic units, shared governance bodies and faculty representatives. (*Id*. at 33.) This process ultimately resulted in the identification of five niche clusters by UMES: (i) an agriculture niche cluster; (ii) an allied health professions niche cluster; (iii) an engineering, aviation and technology niche cluster; (iv) a business and technology niche cluster; and (v) a science and innovation niche cluster. (PRX 2 at 6.)

All three of the niches in Plaintiffs' expert proposal are niches in the UMES proposal; the UMES proposal includes two additional niches. During the remedial trial, Dr. Allen testified about the similarities between the UMES proposal and the Plaintiffs' expert proposal; he asserted that "[t]he proposals were strikingly similar and had considerable overlap." (1/18/17 PM Trial Tr. at 66 (Allen).) He also acknowledged the comparable substantive content between the two sets of proposals. (*Id*.)

The UMES proposal and the Plaintiffs' expert proposal share a belief that an agriculture niche will meaningful increase the institutional identity of the school. In the UMES proposal, the agriculture niche identifies programs such as veterinary technology and veterinary medicine as ideal components of it; this directly reflects the programs included in the Plaintiffs' remedial proposal. This fact speaks to the importance of UMES having a strong program in agriculture, particularly because it is a land-grant university that is located in a more rural community than Maryland's other HBIs.

The UMES proposal and the Plaintiffs' expert proposal also converge on the idea of an engineering niche. The former proposal recommends programs in civil and mechanical engineering, among others, and this directly aligns with the four extremely high-demand

engineering programs that are included in the Plaintiffs' expert proposal. In a similar manner as the agriculture niche, both the institution and the Plaintiffs' experts realize that a land-grant institution must have well-developed programs in engineering to be a competitive university.

The third area of common ground between the UMES proposal and the Plaintiffs' expert proposal is the pharmacy and health professions niche. Both proposals seek to build on the institution's existing strengths in areas such as pharmacy, physical therapy and rehabilitation and make these sources of institutional pride even stronger. Once more, the similarities between these two proposals demonstrate the alignment of strategic thinking in this regard.

It is worth noting that the UMES proposal recommends two more niches than Dr. Allen and Dr. Conrad, as well as additional capital costs for a library and a number of other enhancements. UMES also proposed niches in business and science, and, through its proposal, it also seeks various other institutional enhancements. The difference between the two proposals is primarily reflected in their levels of ambition; the UMES proposal is more expansive in what it requests than the proposal authored by Dr. Allen and Dr. Conrad.

E. Plaintiffs' Proposal Relating to UMUC

As one of the largest providers of online education, UMUC creates unique challenges in terms of assessing and managing its relationship to both HBIs and TWIs. (PRX 312 at 22 ¶ 125.) Unnecessary program duplication between UMUC and the State's HBIs poses significant problems both because of the scope of UMUC's programs and its unique competitive advantages. The original mission of UMUC was limited: it was to provide special and continuing studies programs for [Maryland's] public university system. (PRX 21 at 17-18.) But, UMUC has expanded exponentially due to its competitive advantages over Maryland's more traditional public universities. (*Id.* at 17; 2/6/17 Trial Tr. at 40-41, 89 (Miyares).) As such, it is

able to successfully duplicate and directly compete with academic degree programs offered by the HBIs in Maryland. (PRX 21 at 17.)

Following the February 2016 Order, in which the Court stated that it was not likely to "adopt a remedy that would essentially eliminate UMUC," Plaintiffs revised their remedial proposal with respect to UMUC. (2016 Order at 2 n. 2.) Instead of suggesting that UMUC be eliminated, Dr. Allen testified: "Our 2016 proposal with respect to UMUC was modified. And it was, in fact, dialed back from the much more ambitious proposals in the earlier stage." (1/18/17 PM Trial Tr. at 80-81 (Allen).)

In the 2016 Revised Proposal, Plaintiffs recommended that: (i) all of UMUC's duplicative programs be inventoried, and transferred to the respective HBI; and (ii) specific programs be transferred from UMUC (and other TWIs) to Coppin and Morgan to eliminate duplication and strengthen the respective niches at the two HBIs. (PRX 21 at 17-18.)

1. Plaintiffs' Proposal Related to Total Transfer of all UMUC Duplicated Programs

Initially, Drs. Conrad and Allen outlined a four-step process for transfers to ensure "that the courses would no longer be offered by UMUC to any students and that instead those courses would be offered by the historically black institutions." (1/18/17 PM Trial Tr. at 82 (Allen).) The first stage of this process was to inventory academic degree program duplication between UMUC and the HBIs. The second was to develop and implement plans for transfer. (PRX 21 at 18.) The third stage was to transfer the academic program from UMUC to the HBI. (*Id.*) The fourth was to evaluate compliance and progress of the program post transfer to an HBI. (*Id.*)

Plaintiffs now propose scaling back their remedial plan with respect to UMUC, based in part on the Court's admonition to the parties at the end of trial that they consider "alternatives" to their original remedial proposals. (2/22/17 Trial Tr. at 71 (Lapovsky).) In considering the

Court's suggestion, Plaintiffs re-examined their original proposal in light of trial testimony relating to UMUC's out-of-state or out-of-country military market, and contracts with the Department of Defense (DOD), information that Plaintiffs did not have at the time they were writing their remedial proposal. (*See generally* 2/6/17 Trial Tr. (Miyares); 2/6/17 Trial Tr. (Miles).)

Plaintiffs make the following revised proposals relating to UMUC. *First*, Plaintiffs are no longer suggesting total transfer of all duplicative offerings from UMUC to HBIs. *Second*, Plaintiffs do not seek to transfer the parts of programs where UMUC is working under a DOD contract or engaging in specialized programming targeted towards members of the military stationed out-of-state or outside the U.S.

Instead, Plaintiffs recommend that duplicative programs offered by UMUC can be transferred, but that a Special Master/Monitoring Committee would have the discretion to recommend a more limited transfer with respect to a particular program (such as permitting UMUC to continue to offer the programs only to out-of-state students). The Special Master/Monitoring Committee would base its decision on two considerations, (i) whether the desegregative value of having a full transfer (the duplicative program at UMUC is no longer offered in-state or out-of-state) as compared to a limited transfer (such as UMUC can continue to offer the program out-of-state) is relatively small for a particular program; and (ii) whether there are practicability and sound educational practice concerns with having a full transfer.

2. Plaintiffs' Proposal for Specific Transfers from UMUC

As previously described, Plaintiffs propose the following narrower set of program transfers:

a. Transfers from UMUC to Coppin's Criminal Justice and Applied Social Sciences Niche

CIP	Level	Program Title	Transferred	Desegregative Characteristics
43.0104	Bachelors	Criminal Justice	Transfer from UMUC to Coppin – (also transfer from UB)	Extremely High demand, Statewide and Proximate unique
43.0106	Bachelors	Investigative Forensics	Transfer from UMUC to Coppin	High demand
43.0116	Masters	Digital Forensics & Cyber Investigation	Transfer from UMUC to Coppin	Statewide and Proximate unique

(*See* PRX 21 at 26; 1/18/17 PM Trial Tr. at 81-82 (Allen).)

Plaintiffs' experts chose the transfer programs from UMUC to Coppin because, as discussed previously, the Criminal Justice niche is high demand because, according to Dr. Conrad, careers in criminal justice such as law enforcement are on the rise, and the niche would prepare students for careers in the Baltimore area. (1/24/17 Trial Tr. at 108 (Conrad); *see* PRX 21 at 9.) Therefore, transferring the duplicative online programs from UMUC to Coppin would strengthen Plaintiffs' proposed Criminal Justice niche at Coppin by creating a cohort of online and in person programs at the University. As Dr. Allen noted, he and Dr. Conrad recommended the transfers "as a way of building out Coppin State's offerings in the areas related to criminal justice and security." (1/18/17 PM Trial Tr. at 81-82 (Allen).)

The specific transfer programs recommended above have desegregative potential. Two of the three transfers from UMUC to Coppin are either extremely high demand or high demand. Additionally, two are statewide unique. For example, the Bachelors in Criminal Justice is offered at UMUC and UB, and as such, transferring the online program from UMUC to Coppin

would reduce all program duplication in that area making the program statewide unique at UMUC post transfer.

b. Transfers from UMUC to Morgan's Business and Management Niche

CIP	Level	Program Title	Transferred	Desegregative Characteristics
52.0301	Bachelors	Accounting	Transfer from UMUC to Morgan – (also transfer from Towson)	Extremely high demand
52.0304	Masters	Accounting and Financial Management	Transfer from UMUC to Morgan	High demand
52.0801	Bachelors	Finance	Transfer from UMUC to Morgan	Extremely high demand

(*See* PRX 21 at 27; 1/18/17 PM Trial Tr. at 81-82 (Allen); 1/24 Trial Tr. at 68-77 (Conrad).)

Drs. Conrad and Allen chose the three transfer programs from UMUC to Morgan's niche in Business because these programs have the potential to minimize duplication within the niche. For example, if UMUC continues to offer an Accounting online program, transferring UMUC's online component to Morgan would decrease duplication within Morgan's overall Business niche. The realignment of the Accounting online program from UMUC to Morgan would strengthen Morgan's institutional identity in business, because as Dr. Conrad stated, "business has been, and clearly in our largely capitalist society, one of the most high-demand fields of study for many years. And I think it is a very reasonable expectation that it will continue to be a very, very high-demand field of study." (1/24/17 Trial Tr. at 69 (Conrad).) Also, the recommended programs have desegregative potential because three transfer programs are high or extremely high demand. One is statewide unique.

c. Transferred Programs from UMUC to Morgan's Urban Environment, Health and Sustainability niche

CIP	Level	Program Title	Transferred	Desegregative Characteristics
52.0101	Doctorate	Community College Policy & Administration	Transfer (from UMUC as to out-of-state students to Morgan)	Extremely high demand

(*See* PRX 21 at 17-18; 1/18/17 PM Trial Tr. at 81-82 (Allen).)

Plaintiffs' experts chose the transfer program in Community College Policy and Administration from UMUC to Morgan's niche in Urban Environment because it has the potential to eliminate unnecessary duplication. At the time it was approved, the program at Morgan was unique in the Baltimore region. According to the State's enrollment data, the program attracted a high number of white students. As of 2014, 23 white students or 13.77% were enrolled in the program at Morgan. (PRX 312 at 218.) Currently, Morgan offers this program both in person on its campus, and exclusively online for students living in Maryland and out of the State who wish to take it online. (1/9/17 PM Trial Tr. at 44 (Wilson).) According to President Wilson, the online program enrolls 28% out-of-state students. (*Id.*)

In 2009, MHEC approved the UMUC online Doctor of Management in Community College Policy and Administration. (PRX 402 at 27.) The Maryland Higher Education Commission initially denied UMUC the ability to offer this program on the grounds that it would unnecessarily duplicate Morgan's program because the two were "broadly similar." (1/24/17 Trial Tr. at 80-81 (Conrad); *see also* PRX 21 at 17.) On appeal, however, the Commission reversed by allowing UMUC to offer the program online to out-of-state students. (PRX 21 at 17.) UMUC's duplicated program took away Morgan's out-of-state student pool who would have taken the program through Morgan's exclusively online platform. President Wilson

remarked, "if then the program is returned to Morgan and Morgan has both the face-to-face and the online program, the diversity numbers that you are seeing at UMUC would actually contribute to diversifying the program overall, which would be housed at Morgan." (1/9/17 PM Trial Tr. at 42 (Wilson).)

Based on this history of duplication, Plaintiffs believe that a full transfer of UMUC's online program to Morgan would be educationally sound and practicable. A full transfer would maximize desegregative effect by allowing Morgan to be the sole provider of the program to students in Maryland and outside the state through in person and online platforms.

3. The Role and Extent of Collaboration between UMUC and HBIs

Collaboration between UMUC and an HBI can play an important role in facilitating these program transfers. For example, with respect to collaboration, Dr. Allen stated, "UMUC, as another framework for the transfers, would provide HBIs with necessary technology, assistance in terms of platforms to support the online and blended learning experiences. And those blended learning experiences would be one area for potential collaboration." (1/18/17 PM Trial Tr. at 82 (Allen).) Given that Plaintiffs' experts did not have access to or knowledge of UMUC's specific information delivery platform at the time they wrote their proposal, the extent and means by which UMUC would support HBIs remains to be decided. Dr. Allen emphasized the need for a "special master, experts' committee . . . [to] look at all the pieces in the way that is required to figure out what the timing and scheduling would be, what frankly makes the best sense and what comes first or perhaps doesn't even come at all." (*Id.* at 87.)

The UMUC-Salisbury collaborative Bachelors and Masters in Social Work (B.S.W and M.S.W) provides an example of how the framework of transfer could look between UMUC and an HBI. (*See id.* at 83-84.) The collaboration came about as a result of a military contract, in which the Department of Defense requested bids for a program in Social Work. (2/6/17 Trial Tr.

at 71-72 (Miyares).) President Miyares cast a bid for the Social Work contract with the DOD, in part, because he wanted to "eliminate the competition" from other for profit universities like University of Phoenix. (*Id.* at 72.) At the time, President Miyares cast a bid for the DOD contract in social work, UMUC did not offer such a program. As such, UMUC "approached Salisbury if they were willing to go with us in offering social work." (*Id.*) Salisbury agreed and UMUC won the bid with the DOD. (*Id*. at 72-73.)

The way the collaboration is structured is that UMUC offers the Salisbury curriculum and its degree in Social Work. (*Id.* at 73.) President Miyares testified, "as a matter of fact, at the commencement in April, the President of Salisbury will be there to award the degrees to Salisbury students." (*Id*.) UMUC administers the program, including the "infrastructure that is required." (*Id*.) UMUC pays the faculty who teach the program, but these faculty are vetted by Salisbury. (*Id*.) Student enrollments are counted as Salisbury's, and UMUC does not claim any of the students enrolled in the program. (*Id*.) The program is offered exclusively online. (*Id*.) President Miyares testified that because it was offered online, none the students enrolled in the program and who graduated in its first class had ever been to the Maryland, Eastern Shore region. (*Id*.) The tuition arrangement between UMUC and Salisbury is flexible, UMUC paid Salisbury a fixed sum upfront, and split revenues after expenditures. (*Id*.)

The UMUC collaboration with Salisbury can be used to design more transfer programs that capitalize on collaboration between UMUC and HBIs. First, the UMUC-Salisbury relationship can lead to in depth insight into ways that UMUC can provide infrastructure and technological support to an HBI once one of the specific programs, suggested in the previous section, is transferred from UMUC to an HBI. Second, this collaboration shows that, if UMUC seeks to offer a program or contract with the DOD for a program that is already offered by an

HBI, consideration would be given to start a collaborative relationship between UMUC and the HBI, instead of approving UMUC to offer a brand new program in the area. This arrangement would be educationally sound and practicable, reduce duplication between UMUC and an HBI, and maximize desegregative effect at an HBI.

F. Plaintiffs' Proposed Remedy to Address Online Duplication

Online programs are attractive to students of all races, and as stated above, online programs are now an essential part of the landscape in higher education. (1/24/17 Trial Tr. at 58 (Conrad).) In order for the HBIs to attract prospective students, they must offer students the ability to pursue their degree in-person, online or in a hybrid format. Therefore, the ability to offer online degrees is not optional in today's increasingly competitive market of higher education. The remedy here must require the State to support the current ability of the HBIs to expand their online portfolios, while addressing the future threat to their institutional identity and distinctive niches presented by competition from online programming.

Dr. Wilson described why the failure to move into the online space places institutions at risk of being unable to compete for prospective students. (1/10/17 AM Trial Tr. at 29 (Wilson).) Some students are uninterested in going to a college campus to get their degree. (1/9/17 PM Trial Tr. at 39 (Wilson).) Institutions need to provide students with the opportunity to pursue their education through a variety of different formats. (1/10/17 AM Trial Tr. at 29 (Wilson).) The ability to offer programs both in-person and online would allow an institution to develop its programmatic niches. (1/9/17 PM Trial Tr. at 61 (Wilson).)

Dr. Bell confirmed that UMES is also seeking to expand its online programs for similar reasons. UMES currently offers only one online degree, a master's in cybersecurity engineering technology which was recently added within the last year. (1/10/17 PM Trial Tr. at 67-68 (Bell).) However, UMES is interested in offering some of its other unique programs like

hospitality and tourism online. (*Id.* at 68.) By doing so, Dr. Bell believes that UMES would be able to develop programmatic niches capable of attracting students of all races. (*Id.* at 67-68.)

Bowie's faculty also recognized the unnecessary duplication presented by online programs. In its proposal, the Bowie faculty expressed its "firm belief that it is not the delivery system that *defines* an academic program area," in spite of the fact that UMUC often argues that it is not duplicating academic programs because it offers courses and programs online rather than in a face-to-face format. (PRX 4 at 7 (emphasis in original).) The faculty therefore recommended that UMUC become the delivery source for Bowie's programs and course content. (*Id.* at 7.)

Consequently, the HBIs are seeking to rapidly expand the availability of their online offerings and increase their competitiveness in the online space. The change in unduplicated distance education credit courses available at Bowie between 2010 and 2012 increased 86.7%. (2/6/17 Trial Tr. at 124-25 (Miyares).) During that same time frame, the increase in unduplicated distance education credit courses available at Morgan was almost a 76% increase, and increased by 35% at UMES. (*Id.* at 125.) In fact, President Miyares testified that "Bowie [] and other institutions began to duplicate what we have been doing." (*Id.*)

The State must therefore provide the necessary funding, technological support and technical assistance necessary to enhance and expand the existing capacity of the HBIs to offer online programs. Dr. Wilson testified that Morgan is currently "hampered" in its ability to offer online programs or meet its capacity to enroll up to 1,500 in its online programs. (1/9/17 PM Trial Tr. at 105-06 (Wilson).) "[W]e have to, as an institution, be competitive in the online environment." (1/10/17 AM Trial Tr. at 42 (Wilson).) However, Morgan has not received state funding to mount any of its online programs. (*Id.* at 43.)

Dr. Wilson also testified about the challenges Morgan has experienced with its technological infrastructure. "[B]ecause of lack of funding, the IT infrastructure at Morgan was almost non-existent." (1/9/17 PM Trial Tr. at 77-78 (Wilson).) This directly impacted Morgan's ability to compete with the TWIs. (*Id.* at 103.) For example, two out of state institutions sought to offer the online social work degree that was already offered by Morgan as an in-person program. Morgan offers that online program today but Dr. Wilson testified that his ability to do so continues to be impacted by Morgan's lack of infrastructure. (1/10/17 AM Trial Tr. at 46-47 (Wilson).)

UMUC is positioned to provide technical assistance and data analytics to the HBIs, which would improve their capacity and effectiveness in terms of developing and expanding their online programming. UMUC uses edX, a nonprofit delivery platform, to collaborate with other public institutions seeking to offer their programs online. (2/6/17 Trial Tr. at 144 (Miyares).) UMUC also established a for-profit company, HelioCampus, to offer data analytics to other institutions to permit them to address downward trends in enrollment and improve operational efficiencies. (*Id.* at 144-45.) Finally, UMUC can provide training to faculty to improve their ability to offer online education. (*Id.* at 146.) These are all forms of technical assistance that could be incorporated into the proposed remedy to enhance the online capacity of the HBIs.

The ability to expand online is also dependent on marketing and recruitment. The advertising budget alone for UMUC is approximately $25 million dollars, and the marketing budget is approximately $5 million to $7 million dollars, which includes branding and business to business student recruitment. (*Id.* at 149-50.) The remedy should therefore also contemplate a meaningful investment in advertising and recruitment to improve the competitive advantage of the HBIs in the online marketplace.

The State should also address the competitive disadvantage that the HBIs experience in the online space by facilitating their participation in SARA. As stated below, the states participating in that interstate compact must permit out-of-state universities who are also part of the compact to offer online programs within their state provided that the program has been approved by that state. (1/12/17/PM Trial Tr. at 64-69 (Fielder); 2/8/17 Trial Tr. at 15 (Wheatley).) Currently, among the HBIs, only UMES is a member of SARA. (*Id.*) In order to facilitate the ability of all four HBIs to compete for online students out of state, the State should be required to assist Coppin, Morgan, and Bowie in becoming members of SARA.

More importantly, the State must also strategically and proactively manage the segregative effect posed by online and hybrid programs to those currently available at the HBIs. In many respects, modern technology and makes an online provider such as UMUC a direct competitor for all of the HBIs in Maryland. (PRX 21 at 17.) By tolerating the duplication of programs at the HBIs by allowing UMUC and other institutions to offer similar degrees online or in a hybrid format, the State has perpetuated the dual system of higher education in Maryland and reinforced its segregative effects. (1/18/17 PM Trial Tr. at 25 (Allen).)

UMUC specifically competes with HBIs for non-traditional students, which are a majority of the student population in higher education. (2/6/17 Trial Tr. at 97 (Miyares).) President Miyares testified that UMUC specifically targets working adults with families who prefer the convenience of online or hybrid programs. (*Id.* at 12-13.) He conceded that HBIs such as Coppin also recruit non-traditional students such as older, female students with children at home, or undergraduate students with full-time jobs. (*Id.* at 101-02.) If UMUC offers a broadly similar degree online to those already available at an HBI, those non-traditional students may be more inclined to pursue their degree at UMUC rather than the HBI.

It is important to recognize that online programs exist on a continuum in terms of their format and structure. While some degrees may be offered exclusively online, there are an "unbelievable number" of hybrid programs or blended learning opportunities and different ways of combining online learning with in-class learning. (1/24/17 Trial Tr. at 81 (Conrad).) Even so, there is evidence that UMUC's online and hybrid programming in Maryland also competes with the HBIs for prospective students. (*See* 2/6/17 Trial Tr. at 106-08 (Miyares).)

While UMUC serves a large number of global students, it also served more than 32,000 residents of Maryland in fiscal year 2015. (*Id.* at 105.) Maryland residents represented 48% of UMUC's fall 2014 stateside enrolled students. (*Id.* at 105-06.) UMUC offers on-site instruction at more than 20 locations in the Maryland-DC-Virginia area. (*Id.* at 105.) Its hybrid classes are available at College Park, Largo, Hanover, Andrews Air Force Base, Laurel and Shady Grove, all within 15-30 miles of Bowie. (PRX 21 at 17-18 and n. 5.)

Hybrid courses represent approximately 15% of the total course inventory at UMUC. (2/6/17 Trial Tr. at 109 (Miyares).) And while a proportionately small percentage of that inventory, UMUC recognizes that hybrid education should continue to be supported because some students continue to prefer hybrid courses and value the face-to-face classroom experience. (*Id.* at 110.) UMUC is therefore directly competing for students who are currently enrolled in or considering hybrid education in Maryland.

For example, as described above, the UMUC nursing program approved by MHEC in 2013 was authorized to include a hybrid component at Adelphi and Largo. (1/18/17 PM Trial Tr. at 28-31 (Allen).) The face-to-face component of UMUC's nursing program which was approved but never implemented had the potential to duplicate the nursing degree at Bowie because "the [UMUC] classroom sites were at Adelphi and Largo, and both of which were

within 20 minutes to 30 minute of the Bowie State campus." (*Id.* at 29.) The proximity of hybrid courses to Bowie invites segregative effects if students who might have attended Bowie opt to enroll at UMUC instead. (*Id.* at 29-30.)

On the other hand, placing online and blended programs at the HBIs may offer some desegregative potential by creating more opportunities for students to interact. In-person interaction between students is not essential to achieve some of the benefits of diversity. (1/23/17 Trial Tr. at 93 (Allen).) Online programs may still require "exchanges and interactions between students who are enrolled in the course" as well as with faculty. (*Id.* at 93-94.) Those students may also have other interactions by virtue of their affiliation with the institution or university. (*Id.* at 94.) Blended programs may also contribute to the educational benefits of diversity as students still have the opportunity to interact. "They get to interact in a different format. Some of these online programs have opportunities for face to face. They're hybrid in nature, but they do get to interact in a different format." (1/10/17 AM Trial Tr. at 30 (Wilson).)

Consequently, Plaintiffs recommend the transfer of a limited number of online programs from UMUC to address this existing duplication and its segregative effects. Those specific transfers are discussed above and were identified by Plaintiffs' experts as the most effective way to establish and reinforce the distinctive programmatic niches and programs proposed for the HBIs. Plaintiffs contemplate a Special Master or Monitoring Committee will review the proposed transfers and authorize those which offer the greatest desegregative potential and remediate the unnecessary duplication perpetuated by UMUC's massive online presence.

It may be determined that UMUC's ability to offer an online degree should continue with respect to out-of-state or military students. However, it may be determined that the HBI should be the exclusive provider of a degree in both the in-person and online format to both Maryland

and out-of-state students. The Special Master or Monitoring Committee would evaluate which strategy is most consistent with educational soundness and practicability. This may include an assessment of student interest in the program, labor demand, current capacity of the HBI, institutional mission, required enhancements to allow an HBI to meet the online demand (including technology, marketing and advertising, student services), and the projected demographics of the prospective students in the online program.

Moving forward, Maryland must also avoid or manage unnecessary duplication and segregrative effects presented by online programs. Consistent with the recommendations above, this Court should require that any request or proposal to add a new online or hybrid program include a meaningful assessment of that program's potential impact on existing or proposed niches and programs at the HBIs. The analysis of online and blended programs should consider the proposing institution's mission and the extent that authorizing the program may infringe or diminish the educational mission of other institutions.

Prior to approving an online or blended program that is already offered in-person at an HBI, MHEC should determine (and the Monitoring Committee should confirm) whether the HBI has the interest and/or capacity to expand that program online and whether it would be more appropriate to allow the HBI to do so. For example, Bowie currently offers an online RN to BSN and has the classrooms and labs necessary to offer both the online and blended nursing program that UMUC is also offering. (1/18/17 Trial Tr. at 31 (Allen).)

G. Other Programmatic Enhancements Should Be Included.

This Court has already previewed that "enhance[ing] the quality of current and newly developed programs at the HBIs "may be an additional effective and creative method of enhancing the HBIs programs." (2013 Op. at 60.) In order to anchor the proposed niches and programs at the HBIs, it may be necessary to enhance existing programs in order to increase

institutional capacity. (PRX 312 at 29 ¶ 178, 30 ¶ 182.) This could involve increasing the enrollment capacity or degree levels of specific programs within the proposed niche which are high-demand and attracting other-race students. (*Id*.) It may also require targeted capital improvements and strengthening the institution's infrastructure to improve program quality. (*Id*.)

Consistent with the larger remedial strategy proposed by Plaintiffs, these programmatic enhancements may need to occur at both the undergraduate and graduate levels consistent with institutional mission. (*Id.* at 29 ¶ 178, 30 ¶ 183.) This may require more graduate level programs at institutions with a research focus. Enhancements of current capacity or programs can be particularly effective where an institution has demonstrated the capacity, expertise and accreditation necessary to offer and grew new programs or is already drawing white students. (*Id.* at 29 ¶¶ 178-79, 31 ¶ 184.)

Other enhancements that could *assist* the HBIs in attracting other-race students (while not primary strategies standing alone) were discussed by both Plaintiffs' and Defendants' witnesses. For example, funds for significant and prestigious scholarships may help attract other-race students to the HBIs. (*E.g.*, *Id.* at 9 ¶ 48; 1/18/17 PM Trial Tr. at 21 (Allen).) In addition, enhanced marketing will be needed to help attract students to the new programs, and appropriate funding will be needed to make those efforts possible. (*E.g.*, 2/1/17 Trial Tr. at 13-14 (Simmons).) Finally, enhancements should include a review of the online delivery system relating to the new HBI programmatic niches and a revised strategy with respect to UMUC in those areas.

A meaningful analysis of necessary enhancements requires the input of the leaders, faculty and students of the HBIs. Without the ability to consult with the HBIs directly, the

proposed enhancements are of a general nature but will likely include faculty, staff, student support services, scholarships, funding for marketing and recruitment, technology upgrades, library or research materials, equipment and capital improvements.

VI. THE PROGRAM APPROVAL PROCESS MUST BE REVISED.

In its liability opinion, the Court made a series of findings regarding the State's program development and approval processes that contributed to the constitutional violation. The State has failed to reform these processes to remedy the violation.

In prior desegregation plans and agreements involving the State and OCR, the State had committed to creating new programs at the HBIs as part of its efforts to desegregate the HBIs and fell short on those efforts. In its 1985-89 desegregation plan, the State "set a goal of implementing 25 new programs at the HBIs, but had only implemented 13 new programs." (2013 Op. at 13 (citing "Plan to Assure Equal Postsecondary Educational Opportunity 1985-1989 Final Report" (May 1991), PTX 44).) In the 2000 Partnership Agreement between the State and OCR, the State committed to developing unique, high-demand academic programs at the HBIs and to avoid further unnecessary program duplication. (2013 Op. at 49 (citing 1/11/12 AM Trial Tr. at 35-38 (Oliver)); PTX 4 at 36-37.)

The Court held that "[u]nfortunately, the State did not follow through on this commitment, and white enrollment at HBIs only continued to decline following the Partnership Agreement, such that HBI racial identifiability has continued to increase." (2013 Op. at 49 (citing Conrad Demonstrative Exhibits, at 32 (citing HBI Enrollment Data 1991-2008, PTX 740)); PTX 184 at 5; PTX 69 at 81-82.) The Court further held that "the State has not only failed to take steps to eradicate existing unnecessary duplication, it has continued to duplicate high-demand programs, to the further detriment of the HBIs. (2013 Op. at 49.)

The decision on liability also set forth MHEC's authority in evaluating approvals of new programs, including its ability to reject program proposals for desegregation purposes and its authority to eliminate programs that are unreasonably duplicative. The liability decision also discussed MHEC's failure to address unnecessary program duplication despite its statutory obligations to do so:

> When a state institution seeks to propose a new program, MHEC plays an active role in evaluating the program if the program requires new resources, Md. Code Ann., Educ. § 11-206, but, in any event, MHEC must notify all institutions of higher education of the proposed program, § 11-206.1(b)(3), (5). Another institution or MHEC may then file an objection to the proposed program if, among other criteria, the program constitutes "[u]nreasonable program duplication which would cause demonstrable harm to another institution" or a "[v]iolation of the State's equal educational opportunity obligations under State and federal law." § 11-206.1(e). The Commission also has the authority to eliminate a program that unreasonably duplicates a program at another institution. Md. Code Ann., Educ. § 11-206(e)(5)(iv). As demonstrated by the court's above findings, however, MHEC has not effectively addressed unnecessary program duplication. First, these purported safeguards are only forward facing—they do not address the substantial duplication that existed since, essentially, the beginning of Maryland's system of public higher education. The State offered no evidence that it has made any serious effort to address continuing historic duplication. Second, and even more troublingly, the State has failed to prevent *additional* unnecessary duplication, to the detriment of the HBIs.

(2013 Op. at 50-51 (footnote omitted) (emphasis in original).)

Despite the finding of liability, the State has not materially addressed the aspects of its program development and approval process that in part led to the constitutional violation. Two witnesses from MHEC testified: Secretary Fielder and Monica Wheatley, the Associate Director of Collegiate Affairs, who supervises the unit at MHEC that conducts program approval analyses. (2/7/17 Trial Tr. at 69-71 (Wheatley).)

The testimony of these witnesses establishes that, just as in the liability trial, the State has not remedied the existing duplication of programs. Secretary Fielder acknowledged that MHEC was responsible for programs and the program approval process. (1/12/17 PM Trial Tr. at 9 (Fielder).) Secretary Fielder testified that MHEC had not done anything to remediate the past. (*Id.* at 50.) Ms. Wheatley similarly testified that she was not aware of any efforts by MHEC to address the unnecessary duplication of current programs. (2/18/17 Trial Tr. at 14 (Wheatley).) Indeed, the testimony of these witnesses makes clear that MHEC sees its role in program development and approval as passive – proposed programmatic changes emanate from the individual institutions and MHEC decides whether to approve those changes based on the applicable statutes and regulations. (*Id.* at 45-46; 2/7/17 Trial Tr. at 85-88 (Wheatley).) Given the State's history of *de jure* segregation and the Court's liability finding in 2013 that the current policy and practice of unnecessary program duplication is traceable to that era and has segregative effects, the State has the obligation to take "the requisite affirmative steps to dismantle its prior *de jure* segregated system." *United States v. Fordice*, 505 U.S. 717, 725 (1992). The State and MHEC clearly have not taken the required affirmative steps.

In regard to preventing future unnecessary duplication, the State cannot show that that its post-liability trial practices are any more successful in preventing program duplication than its practices at the time of trial. As noted in the liability order, the COMAR regulations regarding program approval changed in 2012 after the trial in this case but before the Court issued its ruling on liability. (2013 Op. at 52 n. 12.) The relevant regulations have not changed since the Court's liability ruling in October 2013.

Though the current regulations relating to program approval and analysis of duplication (PRX 28) are more detailed than the pre-2012 regulations (PTX 692-93), they do not afford the

HBIs greater protection against unnecessary duplication. As the Court noted in the liability opinion, the new regulations specify that the duplication analysis includes a review of the "[e]ducation justification for the dual operation of programs broadly similar to unique and high-demand programs at HBIs." (2013 Op. at 52 n. 12 (citing COMAR 13B.02.03.09).) But the primary flaw in the prior regulations was not fixed in the current regulations (PRX 28): in both sets of regulations, the State uses the standard of "unreasonable program duplication" instead of "unnecessary program duplication." The difference, as the Court pointed out in its liability ruling, is that an unnecessary program duplication standard requires the State to consider "alternative, non-segregative" means before approving a program at a TWI that duplicates an HBI program. These means could include providing enhancements that will enable an HBI to expand capacity or examining the possibility of offering a program at another HBI instead of the TWI. (2013 Op. at 50-51 (footnote omitted).) In contrast, under an "unreasonable program duplication" standard, market need can be sufficient to justify duplication, as detailed in the trial on liability where the State justified its approval of the Towson/UB joint MBA program on the grounds of market need. (*Id.* at 50-51.)

Plaintiffs' expert Dr. Walter Allen explained this critical distinction between unnecessary program duplication and unreasonable program duplication:

> **Q.** Okay. Thank you, Dr. Allen. You've heard some testimony -- you've been in the courtroom most days, and you've heard some testimony about Maryland's current regulations and its application of them. And do you have an opinion as to whether they are sufficient to undo necessary -- unnecessary program duplication?
>
> **A.** They are not. As I alluded a moment ago, it is a totally different standard to talk about a program being unnecessary and using unnecessary duplication as the standard, because then the focus is on preventing segregative consequences. Or alternatively, the goal becomes one of deciding on or embracing a less-segregative alternative. The challenge here has been that "unreasonable," for example, is substituted. And when one starts talking in that softer

> tone, you're talking about, well, market demand is an excuse for or a justification for unnecessary duplication or the fact that it's delivered online is a justification for unnecessary duplication. To the extent that that logic is allowed to carry forward, then it recreates and reinforces the dual system of higher education in the state.

(1/18/17 PM Trial Tr. at 24-25 (Allen).)

During opening statements, when the Court asked the State to address Plaintiffs' argument that the "educational justification" analysis under COMAR does not look at whether the proposed program is the least segregative alternative, the State's counsel did not answer the question directly. (1/9/17 AM Trial Tr. at 60-61.) Moreover, in the current COMAR regulation specific to program duplication, one of the factors used in determining whether program duplication is unreasonable is "[a]n analysis of the market demand for the program," COMAR 13B.02.03.09, and Ms. Wheatley testified that market demand can justify duplication. (2/8/17 Trial Tr. at 13 (Wheatley).) In contrast, the regulation does not require an analysis of the availability of less segregative alternatives. COMAR 13B.02.03.09. As a reflection that MHEC sees its duplication analysis as a market demand analysis and not a desegregation analysis, Ms. Wheatley testified that it does not seek to project the racial composition of the students that would enroll in the proposed program. (2/18/17 Trial Tr. at 8 (Wheatley).)

The reason why allowing for duplication based on market need without examining less-segregative alternatives reinforces segregation is because, as the Court found in its liability order, "non-black students have less of an incentive to enroll in what is otherwise perceived as a school for black students." (2013 Op. at 53 (citations omitted).) One of the many examples of this is found in a program approval file about which Ms. Wheatley testified which showed that a dramatic difference in the student demographics in two Master of Social Work programs in the City of Baltimore: the program at Morgan State had 84% African American students and 2%

white students whereas the program at the University of Maryland Baltimore had 16% African American students and 57% white students. (PRX 474 at 10.)

In addition to the maintenance of the "unreasonable duplication" standard in the regulations, there is no evidence that in practice the change in regulations have made an appreciable difference in providing more protection to the HBIs from unnecessary program duplication. The MHEC witnesses were not in a position to provide meaningful input on this issue. Secretary Fielder came to MHEC after the current regulations were adopted in 2012 (1/12/17 PM Trial Tr. at 6 (Fielder)) and Ms. Wheatley did not work on program approvals until August 2013. (2/7/17 Trial Tr. at 163-64 (Wheatley).) Ms. Wheatley has not looked at the issue of whether there are programs that were approved under the prior regulations that would have not approved under the current regulations. (*Id.* at 164-66.) Moreover, Ms. Wheatley said that she has never recommended disapproval – either as an analyst or supervisor -- of a program proposed by a public TWI on the grounds that it was broadly similar to a unique or high-demand program at an HBI (2/8/17 Trial Tr. at 13 (Wheatley)), and the State has not otherwise provided an example of such a disapproval.

The State's approval of an RN to BSN program for UMUC in 2013 reflects the difference between an unreasonable program duplication analysis and an unnecessary program duplication analysis. RN to BSN programs are programs designed for working nurses for community college degrees to receive a bachelor's degree in nursing. (*Id.* at 5-6.) The UMUC program as proposed would be offered online or in the hybrid form at Adelphi or Largo, two locations in Prince George's County. (DRE 30 at 21.) The proposal noted that Bowie and Coppin were among the schools which offered an RN to BSN program, but claimed those schools would not be harmed because those "programs are not available through online delivery and thus less

accessible to nurses already in the workforce." (*Id.* at 19.) This representation was incorrect because Bowie has an online RN to BSN program. (DRE 55 at 7; 1/18/17 PM Trial Tr. at 31 (Allen).) Moreover, as stated above, UMUC proposed to have an in person component at Adelphi and Largo in addition to an online component. Under an unnecessary program duplication standard, there would have been consideration given to alternatives that would have placed this high demand program at an HBI, such as by expanding Bowie's online program.

There is an additional action taken by the General Assembly that will create more duplication that MHEC will not be able to stop. The General Assembly enacted enabling legislation to include Maryland as a signatory of the State Authorization Reciprocity Agreement (SARA). Under SARA, state signatories must permit universities that are in another state that is a signatory to SARA to offer online programs in their state provided that the university is SARA-approved and the state in which the university is located has approved the online program. (1/12/17 PM Trial Tr. at 64-69 (Fielder); 2/8/17 Trial Tr. at 15 (Wheatley).)

Moreover, there are aspects of the program approval process that significantly disadvantage the HBIs in developing programs compared to the TWIs because of the HBIs inferior capacity. The COMAR regulations regarding program proposals require, among other things, that the institutions demonstrate adequacy of financial resources; faculty resources; library resources, and physical facilities, infrastructure, and instructional equipment. COMAR 13B.02.03.06, 11-14. Program approval is contingent on the institution making the required showing. COMAR 13B.02.03.27.

In the program proposal form that institutions complete when making a proposal, they must indicate whether a program can be funded using existing resources or requires new resources. (PRX 473; 2/7/17 Trial Tr. at 202 (Wheatley).) Ms. Wheatley could not recall an

instance where a four-year institution received approval for a new degree program when it required new resources. (PRX 473; 2/7/17 Trial Tr. at 203 (Wheatley).) As a result, there have been only eleven degree-granting new programs approved at the HBIs by MHEC since 2013 – none at Bowie, one at Coppin, four at Morgan, and six at UMES. Two of the four Morgan programs involved taking existing bachelors and masters programs and offering a new combined bachelors and master's degree where a student could obtain the BA/MA in less time than if the student went through the two existing programs successively. (2/8/17 Trial Tr. at 3-4 (Wheatley).)

The State has demonstrated that when it considers a programmatic initiative a priority it will provide dedicated short-term and long-term funding. For example, in 2016, the General Assembly passed the University of Maryland Strategic Partnership Act of 2016 (PRX 332) which created a "formal strategic alliance" between UMB and UMCP. Md. Code Ann., Educ. §12-303(a)(2). A primary purpose of the Act us to "improve and enhance . . . academic programs and experiences for students." To that end, the Act mandates that the alliance is designed "to benefit the State and improve and enhance . . . academic programs and experiences for students." Md. Code Ann., Educ. §12-303(a)(2). The Act creates the "Center for Maryland Advanced Ventures at the University of Maryland," Md. Code Ann., Educ. §12-305(a), and the University of Maryland Center for Economic and Entrepreneurial Development ("UMCEED"). Md. Code Ann., Educ. §12-306(a). The legislation provides that the State will appropriate $3 million in FY2018 and each year thereafter in for the Center as well as an additional $1 million in FY2018 and each year thereafter for the Center's efforts to "encourage the development and location of university created or sponsored technology companies in Baltimore City." Md. Code Ann., Educ. §12-305(f). In addition, the Act states that the State will appropriate $2 million

from UMCEED in FY 2018, $4 million in FY 2019, and $6 million for FY2020 and each year thereafter. Md. Code Ann., Educ. §12-306(d). In sum, the State has committed to provide $44 million for these UMB/UMCP programmatic initiatives from FY 2018-22 and then an additional $10 million for every year thereafter. In addition to funding the UMB/UMCP Partnership, the Act also provides that UMBC and Towson will receive increases its base funding that result in a combined increase to the base of those of two schools of $4 million in FY2018, $8 million in FY2019, $12 million in FY2020, and $16 million in FY2021. (PRX 332 at 40; 2/1/17 Trial Tr. at 6-10 (Simmons); 2/1/17 Trial Tr. 6-10 (Schatzel).)

VII. PLAINTIFFS' PROPOSED REMEDY IS EDUCATIONALLY SOUND AND PRACTICABLE.

A. Plaintiffs' Remedy Furthers the State's Legitimate Educational Objectives While Managing Disruption.

As noted above, sound educational policy is not an open-ended invitation to justify otherwise segregative policies. Rather, the State must seriously consider whether a traceable policy can be eliminated in light of educational concerns. (2013 Op. at 57.) This Court has already found that the maintenance and exacerbation of program duplication "does not comport with best practices in higher education." (*Id*. at 58; *see also id.* at 29.) An educationally sound and practicable remedy must be feasible while furthering "a legitimate educational objective." *Knight,* 14 F.3d at 1542.

As with any systemic change, an educationally sound and practicable remedy may involve some level of disruption or inefficiency. In Alabama, for example, the Eleventh Circuit held that even should the proposed remedy result in "a somewhat less efficient" system, "it would not inescapably follow that such inefficiency would render the proposed modified system impracticable or educationally unsound." *Id.* at 1551.

Courts have also recognized that a remedy may pose some initial disruption which resolves itself over time. In *Swann v. Charlotte-Mecklenburg Bd. of Educ.*, 402 U.S. 1 (1971), the Supreme Court established that a reasonable remedy may be "administratively awkward, inconvenient, and even bizarre in some situations and may impose burdens on some; but all awkwardness and inconvenience cannot be avoided in the interim period when remedial adjustments are being made to eliminate the dual school systems." *Id*. at 28.

Plaintiffs anticipate – and indeed expect – that the programmatic realignment associated with curing a constitutional violation will be transformative and therefore potentially disruptive to the dual system currently in place. But Plaintiffs have designed their plan to manage this disruption and ensure that student choice is not only a priority, but will be "truly free" (*Fordice*, 505 U.S. at 743) -- because white students will consider HBIs as a legitimate option and not just a black school. *See Knight,* 14 F.3d at 1541 (citing *Fordice*). (*See also* 2013 Op. at 53.)

Ideally, the most desegregative remedy would accomplish a massive realignment throughout the system in order to mitigate the segregative effects of unnecessary program duplication. (PRX 312 at 9-10 ¶¶ 52-53.) "Given the scope of unnecessary program duplication and the attendant mission creep in Maryland, the most effective remedy would involve a complete overhaul and realignment of the entire system of higher education, including institutional merger and program elimination." (*Id*. at 45 ¶ 264.) However, in light of this Court's orders, Dr. Conrad and Dr. Allen "moderated their proposal and offer a nuanced and educationally sound set of recommendations that we expect to offer the maximum level of desegregation with the most manageable level of disruption." (*Id*.)

There was nothing straightforward about this challenge, but Dr. Conrad and Dr. Allen recognized that each institution must have different roles within the system. (1/25/17 Trial Tr. at

130 (Conrad).) Accordingly, their recommendations seek to provide "symmetry" between the recommended niches and programs and the specific mission and identities at the respective institutions. (*Id.*)

Plaintiffs' proposed remedy comports with best practices in higher education by creating greater alignment across the system in terms of its programmatic inventory and offerings. (PRX 312 at 10 ¶ 56; 1/18/17 PM Trial Tr. at 84 (Allen).) Distinctive institutional identity and programmatic specialization will reduce competition between institutions and produce economic and educational rewards to the entire state. (PRX 312 at 10 ¶¶ 53, 56.) All of Maryland's institutions will be better positioned to compete for grants, contracts, and students to ensure that the Maryland system enjoys long-term success and viability. (*Id.* at 10 ¶ 53, 49 ¶ 285.)

Whether evaluated individually or together, the strategies proposed by Plaintiffs are educationally sound. Each may be practicably be implemented by this Court to reduce the segregation at Maryland's HBIs and preserve the State's ability to pursue its legitimate educational objectives. As detailed below, establishing distinctive institutional identity through niches and programs will produce benefits at both the institutional and systemic level. Furthermore, Plaintiffs' proposal promotes student choice and ensures that students will continue to receive a quality education at Maryland's public institutions. "Major change" may be required in order to establish institutional identity the HBIs and therefore the goal should be to "consistently, carefully, manage the change." (1/24/17 Trial Tr. at 159-161 (Conrad).)

B. Establishing Distinctive Institutional Identity Through Programmatic Niches is Educationally Sound and Practicable.

Enhancing the academic identity of the HBIs through programmatic niches ensures that each HBI fulfills a distinctive role within Maryland's "coordinated, cost-effective system of

affordable, high-quality instruction." (PRX 312 at 27 ¶ 157.) Centers of excellence built around unique and/or high-demand programs will advance legitimate educational objectives while increasing equity and educational opportunity for Maryland's students. (*Id*.) In this way, Plaintiffs' proposal seeks to promote more meaningful student choice. (*Id*. at 45 ¶¶ 265, 268.) This is also consistent with this Court's understanding of the relationship between mission creep, competitive disadvantage and the inability to compete for student enrollment. (*Id*. at 45 ¶ 267; 2013 Op. at 22.)

Niches can be particularly successful and educationally sound when built around interrelated programs. (1/24/17 Trial Tr. at 64-65 (Conrad).) According to Dr. Hrabowski, the "tight integration and synergy" produced within an "ecosystem" of related fields helps to create stronger programs. (Doc. No. 448-3 at 2-3.) Dr. Houston Davis agreed that interdisciplinary connections provide "an important building block" for developing new programs. (10/28/16 Dep. Desig. at 205 (Davis).) Similarly, programs are strengthened when linked with related subjects and across degree levels. (*Id.* at 205-06.) "[T]here are not many disciplines that are pure … most degrees come forward as having interdisciplinary components." (*Id.*)

In addition, many faculty have specialties and expertise that span sub-disciplines. (Doc. No. 448-3 at 2.) A structure which promotes that type of integration is similar to what leading research universities such as MIT, UC Berkeley, and the University of Michigan have created. (*Id*.) Programmatic niches or clusters are often deliberately designed to enable research across disciplines. (*Id*.) Accordingly, Dr. Conrad and Dr. Allen contemplated the extent to which their proposed niches promote interaction between departments and support academic identity and prestige. (1/19/17 AM Trial Tr. at 31 (Allen).)

Niches specifically benefit students by providing a more "holistic education" characterized by coursework synergies and overlap. (Doc. No. 448-3 at 2, 6.) Many students decide to pursue a different course of study after entering a college, and the "transfer pathways" between related programs can be highly attractive to potential students. (PRX 312 at 27 ¶161; Doc. No. 448-3 at 6; 1/31/17 Trial Tr. at 26-27 (Williams).) Students are also drawn to the ability to pursue a program across degree levels. To that end, Plaintiffs' proposal seeks to ensure that the recommended niches also include graduate programs. (1/24/17 Trial Tr. at 65-66 (Conrad); PRX 312 at 29 ¶ 173.) In this way, niches seek to "enhance the meaningful educational options available to students throughout the system." (PRX 312 at 46 ¶ 269.)

Plaintiffs' proposal promotes the long-term viability of existing programs at the HBIs. This is consistent with MHEC's policy of assessing current capacity before expanding programs. (*Id*. at 29 ¶ 169; 2/8/17 Trial Tr. at 16 (Wheatley).) Niches leverage existing institutional strengths. Consistent with this Court's orders, Dr. Conrad and Dr. Allen also recommend that some enhancements of existing program be made to anchor the proposed niches at the HBIs. (PRX 312 at 30 ¶¶ 181-82.) These may include increasing enrollment capacity or degree levels of programs within niches, as well as capital improvements to strengthen infrastructure and improve program quality. (*Id*. at 30 ¶ 182.)

Niches promote specialization and allow institutions to cultivate their academic reputation and prestige. This, in turn, permits them to attract large scale grants and research funding. (Doc. No. 448-3 at 3.) It also facilitates the type of collaborative partnerships with private industry that promotes innovation, economic development, and internships and other learning opportunities for students. (*Id*. at 4-5.) Consequently, Plaintiffs' remedial strategy considered the extent to which programmatic niches can elevate the academic quality of a

university in terms of teaching, research and the student experience. (1/19/17 AM Trial Tr. at 31-32 (Allen).)

All institutions must distinguish themselves in the increasingly competitive market for higher education. (2/9/17 Trial Tr. at 105, 109 (Schmoke).) Programmatic niches allow them to do that in a way that provides the maximum "bang for the buck." (1/18/17 PM Trial Tr. 57-58, (Allen).) Dr. Allen explained, "Programmatic niches recognize the reality that it is a competitive business to attract students. And students are shopping in that market. And so the most attractive product attracts those students and draws those students to your campus." (*Id.* at 12.) Niches are therefore critical to an institution's ability to develop an academic brand. (*Id*. at 17.)

As Dr. Schatzel testified, "[W]hen you're looking at a consumer decision…for where someone wants to go to college, it starts with the fact that they need to be aware of your university and they need to be able to place it in a consideration set." (2/1/17 Trial Tr. at 29 (Schatzel).) An institution's academic quality or reputation influences that decision. (*Id*. at 35-36.) In order to ensure that Towson is included in the "consideration set" or "prospect pool" for which institution a student might select, for example, Towson has a communication and marketing strategy that relies, in part, on the academic programs that they offer. (*Id*. at 46.)

Plaintiffs' remedial recommendations are not only consistent with best practices in higher education, they also offer the greatest potential for achieving efficiencies and improving programmatic alignment across the system. (1/18/17 PM Trial Tr. at 83-84 (Allen).) Plaintiffs specifically recommend that the programmatic niches and programs be identified to prevent mission creep and invite greater efficiencies and alignment throughout the system. (PRX 312 at 29 ¶ 174.) Incorporating lessons learned from other states, Dr. Conrad and Dr. Allen came to

appreciate the importance of programmatic niches in contributing to the institutional identity necessary to a successful remedy. (1/18/17 PM Trial Tr. at 85-86 (Allen).)

Plaintiffs' remedial strategy is educationally sound and practicable in that it contemplates institutional identity at *both* the HBIs and the TWIs to the benefit of *all* students. (PRX 312 at 46 ¶ 269.) When making their recommendations, Dr. Conrad and Dr. Allen were mindful of the fact that the remedy would be felt by the TWIs. (1/18/17 PM Trial Tr. at 35-36 (Allen).) Dr. Allen testified, that "what helped us is that we recognized the strength of the TWIs and their identities" and that they searched for the "sweet spot" in terms of a remedy capable of effectively desegregating the system while managing the impact this would have on the TWIs. (*Id.*)

Plaintiffs' proposals are educationally sound in that they comport with what the HBIs themselves proposed to address unnecessary program duplication at their respective institutions. The input of the HBIs is "intregral" to decisions related to programs and the faculty, deans and provosts at the HBIs should have the most important role in formulating a remedy. (10/28/16 Dep. Desig. at 203, 286 (Davis); 12/9/16 Dep. Desig. at 286 (Davis).) While denied access to the HBIs, Plaintiffs' recommendations are strikingly consistent with those of the HBIs. *See* Section V. In fact, the majority of the HBIs actually proposed a wider set of niches and programs than Plaintiffs. (1/18/17 Trial Tr. PM at 86 (Allen).) As a result, Plaintiffs' overall recommendations are much more feasible and strategic than those suggested by the HBIs.

To the extent possible, Plaintiffs' proposals considered the perspectives and expertise of various stakeholders in Maryland's higher education system. (PRX 312 at 45 ¶ 264.) One such perspective was that of former MHEC Chairman John Oliver, who agreed that developing academic specialties at the HBIs to address unnecessary program duplication is practical and achievable:

> "[W]e really had a clear sense that these commitments, these obligations could be fulfilled, and they were practical ones. Because it was our belief, particularly my belief, that otherwise they wouldn't be in the agreement. . . .They were very achievable."

(1/11/12 AM Trial Tr. at 36-37 (Oliver).) The former presidents of Maryland's HBIs offered similar recommendations in 2005, and Plaintiffs' remedial strategy is consistent with the "promising methods" to desegregate the HBIs outlined by the Cox Task Force and Maryland's own 2009 State Plan for Higher Education. (PTX 13; PTX 22; PTX 1.)

There is also a general consensus among other leaders and administrators in higher education that these remedial strategies are educationally sound and practicable and comport with best practice. (1/18/17 PM Trial Tr. at 84-85 (Allen).) As already discussed, Plaintiffs' remedial strategies are consistent with those relied upon by OCR in other higher education desegregation cases. For example, Maryland's Partnership Agreement with OCR contemplated the expansion of institutional identity as a means to ensuring that Maryland's HBIs could become more competitive for students of all races. (PTX 4 at 36-37; PRX 312 at 46 ¶ 272.)

As for the potential for disruption, Plaintiffs anticipate that the remedy will be phased in over time in order to minimize such disruption. (1/18/17 PM Trial Tr. at 87 (Allen); PRX 312 at 49 ¶ 284.) While the duration of the remedy would be left to a Special Master, Plaintiffs anticipate implementation over five years. (1/23/17 Trial Tr. at 86-87 (Allen).) Maryland's own history confirms that rapid enrollment growth at much greater rates is manageable. (Doc. No. 355 at 436.) For example, from 1964 to 1974, a number of schools grew in a similarly dramatic fashion – Towson grew from 3,412 to 8,887 FTE students, UMBC went from not existing to having 4,854 FTE students, Coppin's FTE enrollment more than quintupled, Bowie's FTE enrollment more than quadrupled, and Salisbury's enrollment more than tripled. (*See* PTX 735.)

C. Targeted Transfers are Necessary to Address the Massive Programmatic Imbalance in the System and are Educationally Sound and Practicable.

As articulated above, this Court must address the massive duplication and programmatic imbalance that exists between the TWIs and HBIs. (PRX 312 at 28 ¶ 163.) The maintenance and exacerbation of proximate program duplication "does not comport with best practices in higher education." (2013 Op. at 58.) Indeed, this Court observed that MHEC recognized that mission creep undermines the competitiveness of each institution and anticipated that it is likely that "the transfer or merger of select high-demand programs from the TWIs to HBIs will be necessary." (*Id*. at 29, 59.)

A limited number of transfers is therefore essential to address the "entrenched competitive advantage enjoyed by the TWIs" and is consistent with this Court's prior orders. (PRX 312 at 48 ¶ 279.) While painful, transfers are "unavoidable." (1/24/17 Trial Tr. at 66-67 (Conrad).) Short of transfer, it will be impossible to establish a sufficient number of quality niches at the HBIs to elevate their institutional identity. (PRX 312 at 48 ¶ 279.) Institutions seek distinction and differentiation in the "market" of higher education. (1/18/17 PM Trial Tr. at 17 (Allen).) Accordingly, Plaintiffs recommend a modest number of programs be transferred from the TWIs to the HBIs. (PRX 312 at 28 ¶ 165.) The goal was to make the market not only more efficient but also more fair. (1/18/17 PM Trial Tr. at 43 (Allen).)

Plaintiffs articulate an educationally sound and practicable strategy to identify a discrete set of programs to transfer to the HBIs. Dr. Conrad and Dr. Allen "narrowly identified" those programs with the greatest likelihood of establishing institutional identity and attracting students of all races. (PRX 312 at 48 ¶ 279.) This includes those programs which either offer high levels of desegregative potential or address duplication within overlapping service areas. Furthermore, Plaintiffs focused on programs where the HBI has demonstrated capacity to absorb or where the

program would significantly strengthen a curricular niche. (*Id*. at 28 ¶¶ 164-65). The goal is to "enrich" the programs already at the HBIs. (1/24/17 Trial Tr. at 74 (Conrad).) Also of note is that accreditation was fully considered when selecting the programs to be transferred to the HBIs. (*Id*. at 75.)

Transfer may be "particularly compelling" or educationally sound where the HBI is currently offering a few unique and high-demand programs within a niche, but the portfolio of programs and degree levels within that discipline are dispersed among multiple institutions. (PRX 312 at 28 ¶ 167.) Moreover, transfers may have been "triggered" by the State's own decisions to duplicate programs at the HBIs. (1/24/17 Trial Tr. at 69 (Conrad).) Transfer might also be necessary where programs are available at nearly every institution. (PRX 312 at 28 ¶ 167.) In those instances, transfer is entirely consistent with the State's overall goals of achieving systemic efficiencies and maximizing resources associated with programmatic realignment.

Plaintiffs have sought to mitigate the disruption associated with transfers. As Dr. Allen explained, "[W]e were intent on trying to find . . . a sweet spot such that the changes that we recommended maximized benefits for the HBIs and minimized the harm, for lack of a better word, or minimized what the TWIs lost." (1/18/17 PM Trial Tr. at 35 (Allen).) The proposal optimizes benefits to the HBI while minimizing impact at the TWI. (*Id*. at 8.) In fact, the proposed transfers represent a small percentage of the portfolio of programs at the TWIs. (*Id*.) More importantly, areas of academic excellence remain intact at the TWIs. For example, the proposed transfer of computer engineering from UMBC to Morgan will not "gut" UMBC's strength in this area, since computer science would remain. (*Id.* at 88.)

Institutions have a demonstrated ability to manage the disruption associated with the termination of programs consistent with sound educational policy. For example, following

the decision to terminate the joint UB/Towson MBA program, Towson implemented a "teaching out" whereby enrolled students are able to complete their program and faculty were retained and redistributed to other programs within the institution. (2/1/17 Trial Tr. at 71-72 (Schatzel).) Therefore, institutions can manage the disruption to both students and faculty anticipated with the termination of programs associated with a transfer.

Indeed, Maryland has managed large-scale programmatic realignments in the past. One example is when the State integrated a private institution into its public system. The transition in the 1970s of formerly private UB into the Maryland public higher education system moved its programs, faculty, and students under the State's governance structure. This "system transformation" demonstrates the ability of Maryland to manage the programmatic changes contemplated by Plaintiffs' proposal. (1/18/17 PM Trial Tr. at 89 (Allen).) As Dr. Allen testified, "one of the greatest challenges that can be faced by a system is bringing in a private institution into a public system, and that was accomplished quite successfully by the public higher education system in Maryland." (*Id*. at 90-91.)

While not a true "transfer," the incubation of engineering at UMBC is also informative. Over thirty years ago, the State used UMCP's infrastructure and accreditation to embed its engineering programs at UMBC. (1/17/17 AM Trial Tr. 40-41 (Richardson).) The State Board initially supported the development of graduate and undergraduate programs in several engineering disciplines at UMBC as extensions of UMCP until UMBC established its own engineering programs. (PRX 18 at 3; PRX 434 at 26-27, 49.) The state-backed arrangement was meant to serve the Baltimore area and develop cooperative graduate engineering programs between UMCP and UMBC. (PRX 18 at 3.) This systemic realignment (though creating unnecessary program duplication with Morgan) was innovative, and allowed one institution to

seed and launch what became an independent program. (1/18/17 PM Trial Tr. at 90-91 (Allen).) This type of state-supported coordination suggests that Plaintiffs' proposed transfers are feasible.

Other evidence shows that significant programmatic and policy changes can be implemented by MHEC on a relatively rapid timeline. Maryland enacted legislation to enroll in SARA in 2015. (2/7/17 Trial Tr. 93-94 (Wheatley).) Since then, Maryland enrolled its first institutions in February 2016 and has already enrolled twenty Maryland institutions in this reciprocity agreement for online education. (*Id*. at 97.) Maryland, if committed, has the demonstrated capacity to adapt it policies to accommodate different academic program models and learning delivery arrangements.

The recent reorganization and restructuring of Georgia's higher education system confirms that systemic realignment can practicably achieve educational benefits beyond that of desegregation. While desegregation played no role in Georgia's recent initiative to implement an ongoing series of consolidations across the state, the avoidance of program duplication was one of the six principles behind the consolidations. (*See, e.g.*, 10/28/16 Dep. Desig. at 103 (Davis).)

From 2011 to 2016, the University System of Georgia (USG) initiated 7 consolidations involving 14 institutions. The consolidations have been substantial in scope and have varied in terms of the relationships between the merged institutions. (*See id.* at 118.) One benefit has been the avoidance of duplication. (*Id.* at 104.) The consolidation involving Kennesaw State University ("KSU") and the former Southern Polytechnic State University illustrates the educational soundness and practicability of consolidating duplicative programs. (*Id*. at 103-05.) Approximately ten programs were consolidated at the new KSU during his time at USG. (*Id*. at 122-23.) All faculty in the affected programs were retained. (*Id*. at 123.) The new KSU has

"been able to achieve efficiencies, save on administrative costs, and make better use of dollars for use in the classroom." (*Id*. at 105.)

Another consolidation overseen by Dr. Davis provides further evidence that state systems can effectively manage programmatic realignments of faculty across institutions. Dr. Davis confirmed that when two former institutions had "different faculty and credential expectations in terms of requiring the Ph.D. for all teaching purposes," the consolidated institution practicably managed these differences by developing a "transition plan" for integrating the faculty's differing credentials. (*Id*. at 139-40.) Dr. Davis further confirmed this transition was performed in what he deemed to be an "educationally sound" manner through its use of committee structures. (*Id*. at 140.)

A third consolidation successfully transformed a college which served a less prepared student population into a "new" institution with a "high research capcity." (*Id*. at 147.) Here, one of the former institutions had an "access" mission which served students with lower incoming qualifications. (*Id.*). Among other transitions, it has required the new consolidated institution to acquire faculty with higher qualifications. (*Id.* at 148.) All of the faculty at the "access"-oriented institution were retained. (*Id*.) While there have been challenges involved in transforming a former "access"-institution into a top-tier research university, these were addressed in an educationally sound manner. (*Id*. at 148-49.)

Plaintiffs have similarly proposed a reasonable timeline for the implementation of their proposal. (1/18/17 PM Trial Tr. at 87 (Allen).) Plaintiffs' recommended appointment of a Special Master and Monitoring Committee similarly recognizes the need for institutional faculty and administration to engage in more detailed discussions about implementing the initiatives ordered by this Court. The experiences in Georgia and across Maryland's own higher education

system provide no reason to presume that the transitions Plaintiffs propose will result in a level of disruption to students, faculty, or institutional accreditation which could not feasibly be managed to achieve legitimate educational objectives through a less segregative means.

D. Plaintiffs' Revisions to the Program Approval Process and Treatment of UMUC Will Advance Legitimate Educational Objectives and Can Be Practicably Implemented.

Plaintiffs' revisions to the program approval policies and treatment of UMUC further legitimate educational goals by curing current deficiencies in the State's program approval policies. Of equal importance, these revisions will prevent the reversal of progress made under the remedial order towards dismantling the dual system. A successful strategy must not only cultivate the HBIs' distinctiveness through new and transferred programs, it must also preserve that distinctiveness through the program approval process. Indeed, the soundness of such preventative measures are illustrated by Maryland's history, where insufficient program approval practices reversed initial progress in desegregation. This Court's liability order recognized that Maryland's initial gains in integration during the 1960s and 1970s "halted almost as soon as they began" as a result of ongoing program duplication. (2013 Op. at 49 (citations omitted).) Plaintiffs have proposed sound revisions to assure the investments made under this Court's remedy can realize their full potential and effectively cure the violation found by this Court.

As fully detailed in Section VI, the State's current program approval practices continue to be inconsistent with the processes mandated by *Fordice* and this Court's liability order. To this end, many of Plaintiffs' proposed revisions simply clarify in express terms fundamental obligations required by federal law: Maryland must perform a "thorough analysis" for whether a TWI's *newly proposed program* broadly overlaps with an HBI's and there are more desegregative alternatives that practicably can be employed to serve the need. It is plainly

educationally sound to require the State to perform the analyses required by the Constitution, particularly in light of the State's continued effort to evade such obligations. Plaintiffs' strategy with regard to UMUC and online programming are consistent with this reasoning. While the analyses related to UMUC may engage in a different set of questions, *Fordice* makes no blanket exception for certain types of public institutions. Plaintiffs' proposed revised treatment of UMUC and online programming is educationally sound, therefore, in that it assures the State does not evade its constitutional obligation to perform a "thorough analysis" and a "serious consideration" of whether the full range of less segregative alternatives can practicably be implemented.

The practicability of implementing these revisions finds support in Tennessee's implementation of a policy similar to the one Plaintiffs propose. There, a 2001 consent decree obligated the Tennessee Board of Regents and the Tennessee Higher Education Commission to assess whether new programs proposed that were geographically proximate to Tennessee State University would have any segregative effect before the program would be approved. *Geier v. Sundquist*, 128 F. Supp. 2d 519, 534-35 (M.D. Tenn. 2001). Moreover, the consent decree makes clear that the geographically proximate TWIs could not propose programs already offered by Tennessee State absent a showing of no segregatve effect: "TSU shall maintain its current exclusivity in Middle Tennessee for all programs in which it now enjoys exclusivity unless there is a demonstrated need for duplication *and* a showing that such duplication will not adversely affect the desegregation of TSU." *Id.* at 535 (emphasis added).

It is also educationally sound to extend policy protections beyond existing programs to the HBIs' *anticipated areas of programmatic growth.* As discussed previously, the continued practice of mission-creep poses the risk that TWIs will continue to encroach on the distinctive

fields that remain open to the HBIs under both this Court's remedial order and any identified areas which an HBI seeks to pursue through the normal program approval process. Drs. Conrad and Allen analyzed this phenomenon of encroachment to observe that the TWIs are often able to "move into and then dominate a number of curricular areas and fields of study" at a faster pace than the HBIs and that this makes it "extremely difficult to identify distinctive niches or academic programs which would be exclusive to the HBIs." (PRX 312 at 28 ¶ 164.)

Dr. Allen provided an example of this phenomenon by describing the recent approval of UMB's health sciences program. Dr. Allen explained that "in my expert judgment, [that] was just a perfect opportunity to assist Coppin in growing in this area of incipient strength around allied health." (1/18/17 PM Trial Tr. at 31 (Allen).) Instead, MHEC's approval of UMB's Masters in Allied Health "essentially had the effect of squelching the development of that area [at Coppin]" for building distinction. (1/21/17 Trial Tr. at 113 (Allen); *see also* PRX 428.) This example demonstrates the educational soundness and practicability of Plaintiffs' proposed revisions to the program approval process. If TWIs continue to narrow the options for developing distinction, it becomes increasingly more difficult to practicably remedy unnecessary program duplication and its segregative effects. (PRX 312 at 32 ¶ 194.) The same risks are posed by Maryland's current treatment of UMUC (as discussed above in Section V, Parts E and F). Thus, regulating the expansion of TWI programs, including online programs like UMUC's, assures that the decree's investments in dismantling duplication and developing distinction will not be hindered or constrained. (*Id.* at 9 ¶¶ 49, 33 ¶ 200.)

In light of such challenges, it is educationally sound to prohibit TWIs from creating programs that logically extend into the HBIs' anticipated areas of growth. This strategy provides a sound means for ensuring the viability of developing HBIs' distinctive academic

identities. It also protects the investments made by this Court and the HBIs in cultivating academic areas of specialty. (PRX 312 at 9 ¶ 49; 1/18/17 AM Trial Tr. at 78-79 (Allen); 1/24/17 Trial Tr. at 23 (Conrad).) Indeed, the educational benefits attained by niches and transfers -- eliminating unnecessary program elimination, creating distinctive institutional identities at HBIs through niches, and greater programmatic alignment across the system -- can only be achieved if adequate protections exist to preserve the progress towards greater differentiation.

E. Plaintiffs' Approach to Accreditation is Educationally Sound and Practicable.

Plaintiffs' remedial plan anticipates and accounts for the accreditation requirements associated with creating new programs and transferring programs to the HBIs. (PRX 312 at 46-47 ¶ 274.) Plaintiffs have accounted for both types of accreditation implicated by the remedy: institutional accreditation under Middle States Commission on Higher Education (MSCHE) and "specialized" or "programmatic" accreditation required for any professional program. (*See* 2/08/17 Trial Tr. at 41, 132, 135 (Manning).)

Defendants' expert on accreditation, Dr. Sylvia Manning, made clear on several occasions in her testimony that she was *not* asserting that Plaintiffs' proposal put the institutional accreditation of any of the Maryland HBIs or TWIs at risk. (*See id.* at 136-37, 161, 181.) Moreover, it terms of programmatic accreditation, she was not able to say that any implementation of any of the HBIs programmatic niches would create programmatic accreditation review. (*Id.* at 164-77.) At most, she testified that a review *might* be triggered and it may require "a lot of work" in terms of reporting and phasing in programs. (*Id*. at 37, 58.)

As a basic matter, Dr. Manning overstated the likelihood that such reviews would occur under Plaintiffs' plan. Drs. Conrad and Allen carefully considered and built upon the areas

where HBIs have existing programmatic accreditation and strong programs. (PRX 312 at 46-47 ¶ 274.) To illustrate this process, Dr. Allen explained that part of the "calculation" for proposing certain transfers in engineering to Morgan was to consider whether Morgan had "accreditation status which required that the university demonstrate its ability to offer and to sponsor … successful engineering program[s]," "that the laboratories be in place," "the library satisfied the standards." and "the computing capacity be there." (1/18/17 PM Trial Tr. at 40 (Allen).)

This method of considering each institution's existing programs lowers the likelihood of substantive reviews by MSCHE. Not all new programs require review. (*See* 2/08/17 Trial Tr. at 194-95 (Manning).) As per MSCHE's standards, "logical extensions" of existing programs will routinely receive approval. (*Id.* at 194-95.) Dr. Manning conceded that new programs which fall in "the realm of programs" already offered will normally receive approval without requiring substantive reviews. (*Id*. at 195.) Plaintiffs' approach of proposing programs around strong programs at the HBIs suggests that any new programs under the remedy will satisfy MSCHE's "logical extension" standard and would not trigger a review. Indeed, Dr. Manning could not state whether *any* of Plaintiffs' proposed niches, standing alone, would prompt a substantive review. (*Id*. at 174.) Dr. Manning also did not consider whether the proposed programs fell into the "realm" of the HBI's existing programs and would, thereby, be considered "logical extension" for routine approval. (*See id.* at 165-68, 171.) For example, to assess the proposed programs in Bowie's Computer Sciences Niche, Dr. Manning did not recall reviewing the current programs Bowie offers in computer science, did not go back to the institutional catalog to review programs accredited by the Computing Accreditation Commission, and did not consider other existing programs that may fall within this niche. (*Id.* at 165-68.)

Even if a substantive review is required by MSCHE, such reviews meet standards of practicability. They are routine practices in higher education. As Dr. Lapovsky testified, institutions do these reviews "all the time . . . every ten years there's a visit required and a long, lengthy self-assessment. Every five years every school has to do an update. And frequently there are more frequent updates for special issues that the accreditors have." (2/22/17 Trial Tr. at 29 (Lapovsky).) Moreover, any review process is resolution-oriented. Dr. Allen explained that these accrediting bodies "identify yellow-flag areas and then assist institutions in terms of satisfying whatever shortfalls are there so that ultimately and eventually those institutions will earn their accreditation." (1/18/17 Trial Tr. at 95-96 (Allen).) Tellingly, Dr. Manning could not identify *any* instance where a TWI or an HBI has lost accreditation due a review. (2/8/17 Trial Tr. at 136 (Manning).)

Indeed, there is also no appreciable risk posed to the TWIs' accreditation that would negate the soundness and practicability of Plaintiffs' plan. The modest number of transfers and breadth of the TWIs' program offerings assures that all institutional accreditation will be maintained. (1/18/17 PM Trial Tr. at 95-96 (Allen).) While enrollments may drop at some TWIs, there is no evidence that accreditation will suffer -- in fact, Coppin has experienced significant declines in enrollment without losing accreditation. Additionally, the new programs and transfers will not result in any loss of specialized accreditation across the system if a good-faith commitment is made by the State and TWIs to support the HBIs' capability to secure any additional accreditation. The transitions may be practicably managed, such as through teach-out methods discussed by both parties' experts. (1/18/17 AM Trial Tr. at 7-8 (Lapovsky); 2/08/17 Trial Tr. at 55-56, 71-73, 77-78 (Manning).) Ultimately, specialized accreditation can expand across the system as the remedy develops greater distinction across all institutions. Dr. Manning

expressed no opinions that would contradict these conclusions -- for example, when asked whether UMBC would be viable after the transfer of engineering programs, she stated this type of opinion "fall[s] under the conclusions that I am not offering opinions on." (2/08/17 Trial Tr. at 196-97 (Manning).)

The feasibility of maintaining accreditation finds support in Georgia's recent consolidations across its state system. (*Id.* at 191-92.) As part of this larger systemic realignment, no institution has lost its accreditation. (*Id.*) The district court's decision in *Knight* also indicates the soundness and practicability of ordering the parties to create new programs which are designed to secure specialized accreditation. *Knight*, 900 F. Supp. at 316, 370-372. There, the Alabama district court ordered the creation of a graduate engineering program at AAMU (an HBI) which had not yet achieved specialized accreditation. The likelihood of obtaining accreditation was demonstrated by the institution's current programmatic strengths and interests. *Id.* at 316. As part of the remedial decree, the district court addressed accreditation by requiring its Long-term Planning and Oversight Committee to "implement a fiscally and educationally sound engineering program at AAMU" which shall "be designed in such a manner as to secure independent ABET accreditation." *Id.* at 317, 371. As part of this remedial process the committee was charged with "personally interviewing ABET officials to secure assistance." *Id.* at 316, 370-72. Ultimately, this collaborative remedial process was successful, and AAMU now has ABET accredited programs in Civil Engineering, Computer Science, Electrical Engineering, and Mechanical Engineering. The experiences in Georgia and Alabama indicate that Plaintiffs' plan soundly accounts for accreditation needs and can practicably manage the transition process.

F. The Anticipated Costs of Plaintiffs' Remedy are Educationally Sound and Practicable.

Without question, there will be some financial impact associated with dismantling Maryland's dual system of higher education. As Dr. Allen testified, "resources will be required" to implement Plaintiffs' proposal, although the specific amount of those resources must be analyzed on a "case by case" basis. (1/18/17 PM Trial Tr. at 44 (Allen).) However, the fact that there will be costs required to correct a constitutional violation should be expected, and those costs can be managed. The strength of the TWIs today, as reflected by their academic excellence and deep program inventories, was "purchased in terms of the harm that was done to the HBIs." (*Id*. at 36 (Allen).) Addressing that imbalance is a necessary function of remedying the systemic inequity produced by Maryland's illegal policies and practices. More importantly, the expected outcome of Plaintiffs' remedial proposal will be a system which achieves a "better, more efficient and effective use of the State's economic resources." (PRX 312 at 10 ¶ 53.)

The projected costs of implementing Plaintiffs' remedial proposal cannot be calculated prior to this Court's final remedial order. Plaintiffs did not have access to the information necessary to provide this Court with a reliable estimate of the overall costs of the recommended niches, new and transferred programs, or the related enhancements for each HBI. (1/17/17 PM Trial Tr. at 75-77 (Lapovsky).) However, an accurate budget for each aspect of Plaintiffs' proposal can be easily prepared with additional information. Projected enrollment and completion data, an assessment of current resources including faculty and staff, and identification of facility needs would permit the proposed programs to be costed out "within a few months." (*Id.* at 80-82.) When forecasting these costs, the most important consideration guiding this inquiry should be the expected impact of the remedial plan on system-wide enrollment over time. (*Id.* at 38-39.)

Given the current record, Plaintiffs anticipate that implementation of their remedial proposal to implement the ten recommended niches at the four HBIs would require approximately $230 million to $650 million in operating costs, exclusive of capital costs and other necessary enhancements. *See* Section VIII.B.6. Even so, it is clear that the anticipated costs of Plaintiffs' proposal are fully within the realm of what is educationally sound and practicable in terms of what other higher education desegregation cases have contemplated. Although it is difficult to determine and compare the final costs associated with the remedial orders and settlement agreements in other states, the anticipated costs associated with the remedy here is consistent with what was contemplated in those cases. The remedies in other jurisdictions (including some capital costs) ranged from approximately $215 million in Alabama to over $516 million in Mississippi, which are in line with the proposal here, particularly when inflation is taken into account. *See* Section VIII.B.6.

Plaintiffs' remedial proposal is educationally sound and practicable to the extent that it mandates a more efficient use of state resources. The State's practice of unnecessary program duplication is "not justifiable" in terms of good educational practice, nor does it make sense in a world of scarce resources, to waste those resources by offering the same program at multiple institutions within a discrete region. (1/18/17 PM Trial Tr. at 23 (Allen).) Moreover, there is evidence the State has sufficient funds to implement Plaintiffs' remedial proposal. As discussed above, Maryland's Strategic Partnership Act includes $44 million of State appropriations for FY 2018-22 and $10 million each year thereafter to support joint UMB and UMCP ventures created in that Partnership Act. (*See* PRX 332.) Moreover, the projected $230 million to $650 million in new operating costs associated with Plaintiffs' proposal over several years represents a small share of the State's total appropriations. For example, the FY 2015 data shows $1,266,230,253

of State appropriations for its public four-year institutions as part of the total of $3,306,236,429 in unrestricted funds for that same year. (PRX 300 at 34-35, 36-37.)

Plaintiffs moderated their recommendations to comport with what was both educationally sound and practicable. (*See* 1/18/17 PM Trial Tr. at 64-65 (Allen) ("we were limiting ourselves and being very careful to not go too '"pie in the sky'").) Dr. Conrad testified that he and Dr. Allen considered costs for "every single program" they included in their recommendations. (1/25/17 Trial Tr. at 96 (Conrad).) Dr. Conrad and Dr. Allen identified and focused on programmatic areas at the HBIs which offer the infrastructure necessary to produce successful outcomes. (1/18/17 PM Trial Tr. at 41-42 (Allen).) This included an assessment of the faculty and facilities already in place to support the proposed niches and programs. (*Id*. at 44.) After doing so, Plaintiffs prioritized those recommendations which would serve a legitimate educational objective as well as leverage existing resources.

As described above, the niches and programs recommended by Drs. Conrad and Allen were selected after careful, in-depth consideration. For example, the engineering and health sciences niches proposed at UMES are associated with new buildings that have already been built or are coming online there. (2/21/17 Trial Tr. at 126 (Allen).) Similarly, there is a new building at Coppin capable of accommodating the niche in allied health proposed for that school, and Morgan has a new business school capable of accommodating that proposed niche and set of programs. (*Id*. at 128.) In addition to increasing institutional capacity to attract students of all races, this strategy of leveraging existing resources provides the "scaffolding" necessary to contribute to and benefit from demonstrated successful programs at the HBIs. (1/18/17 PM Trial Tr. at 64-65 (Allen).) As Dr. Allen testified, "quality begets quality." (*Id*. at 21.)

Plaintiffs' remedial strategy of establishing distinctive institutional identity through niches is an investment that requires "building out the institution across the board." (*Id*. at 21.) It is "critically important" to develop the affiliated programs around the niche because it solidifies, focuses and amplifies the strengths of that institution. (*Id*. at 19-20.) Growing the institution "writ large" creates a "multiplier effect" in terms of the expected benefits. (*Id*. at 20.) Many institutions conclude that such an investment is educationally sound and practicable (or "worth it") given the probability that "it will pay dividends down the road." (*Id*. at 22.) Consequently, Plaintiffs' proposal offers a remedy that is more likely to be sustained into the future because it incorporates valid, educationally sound, and practicable strategies.

The record also shows that the Defendants' projected costs of what the State must pay to implement Plaintiffs' proposal are fundamentally flawed. Dr. Lichtman projected that the total cost of Plaintiffs' remedial proposal (including both new and transferred programs) would be $385,146,664 in one year and $3,513,107,089 over ten years. (DRE 70 at 150 Table 45.) That total includes $174,449,600 in capital costs in year one and $1,636,410,000 in capital costs over ten years. (*Id*.) His projection for operating costs was $185,118,226 for year one and $1,851,118,260 over ten years. (*Id*.) Meanwhile, Plaintiffs' high-end operating cost estimates are only one-third of Lichtman's estimate and Plaintiffs have been very mindful in their program recommendations to minimize the need for new facilities.

Dr. Lichtman made erroneous assumptions when calculating the projected operating costs associated with Plaintiffs' proposal. He came to this amount after identifying the average state funds per full-time enrollment and multiplying that by the number of anticipated students in the proposed programs to identify the state operating funds required for each program. (1/17/17 PM Trial Tr. at 43-44 (Lapovsky).) In fact, Maryland does not budget higher education per FTE,

which is an average calculation of what Maryland has actually spent to educate a full-time student across all of its public institutions each. (2/22/17 Trial Tr. at 19 (Lapovsky).) This does not take into account the different level of costs associated with different types of programs. (*Id*. at 36.) In addition, it was unclear how Dr. Lichtman calculated projected headcount or enrollment and whether those numbers anticipated attrition. (*Id*. at 44-45.)

There were also identified errors in the way in which Dr. Lichtman calculated the capital costs associated with Plaintiffs' proposal. Dr. Lichtman took a list of capital projects submitted by each institution to calculate an overall capital cost for the proposal. (*Id*. at 44.) Those reflect overall capital needs at each institution and were not prepared as a part of this remedy. In doing so, Dr. Lichtman failed to account for whether an institution is currently operating at capacity. (*Id*. at 44.) For example, a 2013 State report concerning Coppin from a commission chaired by Dr. Hrabowski stated that Coppin was "under-enrolled by more than 2,000 students" and was "burdened with an 'economies of scale' problem." (PRX 82 at 9.) In addition, he did not analyze the different needs and sets of assumptions associated with different types of programs. (1/17/17 PM Trial Tr. at 62 (Lapovsky).) Instead, he included line items unrelated to programs or Plaintiffs' remedial proposal such as costs for "gyms and upgrades of underground facilities and utilities." (2/22/17 Trial Tr. at 27 (Lapovsky).)

Similarly, the State miscalculated the anticipated costs of program transfers. Dr. Lichtman identifies the overall state appropriation associated with program transfers as approximately $185 million over one year and $926 million over five years. (DRE 70 at 134.) However, he fails to account for a reduction in costs at the TWIs associated with a transferred program. (1/17/17 PM Trial Tr. at 54 (Lapovsky).) With a program transfer, one expects a fall in enrollment as well as a reduction of faculty and other costs at the TWI which would be

reallocated to the HBI at least in part. (*Id.*) As Dr. Conrad and Dr. Allen note, program transfer specifically anticipates the transfer of all of the costs and resources associated with offering that program over to the receiving institution. (*Id.* at 54; PRX 312 at 49 ¶¶ 282, 285.) Moreover, it cannot be assumed that grants or contracts will not follow programs, as many are tied to faculty who may transition with the program to the HBI. (1/17/17 PM Trial Tr. at 55 (Lapovsky); PRX 312 at 49 ¶ 286.)

In sum, Plaintiffs' proposal is both educationally sound and practicable. Though there is cost and some degree of disruption or adjustment associated with implementing the proposal, it furthers legitimate educational objectives and is feasible.

VIII. THE COURT SHALL SET FORTH THE ELEMENTS OF THE REMEDIAL ORDER AND IMPLEMENTATION PLAN.

Plaintiffs' remedial proposal places primary emphasis on the creation of programmatic niches at the HBIs which are anchored in unique and high-demand programs. This will require the establishment of new unique and high-demand programs and in a few cases, transfer of programs from a TWI to an HBI in the system. (PRX 312 at 50 ¶ 288.) Altogether, Plaintiffs' strategy has three principal components: (i) the creation of programmatic niches featuring unique and high demand programs; (ii) the enhancement of current program offerings and the resources needed to support the proposed niches; and (iii) the revision of the State's program approval process to address both current and future duplication. (*Id.* at 9 ¶ 49.)

Defendants have not put forth any remedial proposal other than the one this Court rejected as inadequate a year before trial. Instead, Defendants focused their case at trial on attacking Plaintiffs' proposals. They focused on: (i) improperly relitigating issues regarding unnecessary program duplication established at the first trial; and (ii) attacking the premise that unique and high-demand programs are an appropriate way to attract other-race students to the

HBIs. These issues have already been decided by the Court and will not be revisited. The remainder of Defendants' remedies case, distilled to its essence, was that: (i) the new programs proposed by Plaintiffs would be too costly for the State to undertake; and (ii) the transfer of programs from the TWIs to the HBIs are vehemently opposed by the TWIs.

Neither contention, even if proven, can excuse the remediation of the Constitutional violation proven in this case. *First*, there is simply no "it would be expensive to comply" exception to the Equal Protection Clause. It is hardly surprising that the remediation of past segregation will involve substantial costs. After all, if such costs were not implicated, the HBIs would have the power to remediate their situations single-handedly in tune with the ancient proverb "physician, heal thyself." Moreover, the State of Maryland has the responsibility and the capacity to fund the desegregation of the HBIs that the law requires. (*See* PRX 330 at 34-35 ($3.3 billion FY 2015 budget).) While the Court understands that costs cannot be ignored, there will be significant costs associated with the remedial proposal in this case, just as there were in the other states subject to remedial orders and decrees. *Second*, it is not surprising that the TWIs with programs earmarked for transfer do not wish to lose their programs, for there is typically opposition to desegregation orders from the population that has not been subjected to segregation. (*See, e.g.*, 1/30/17 Trial Tr. at 67-70 (Hrabowski); 1/31/17 Trial Tr. at 72-74 (Simmons).) Regardless of this opposition, the constitutional violation proven in this case remains and the State has presented no *other* evidence from the TWIs as to why the Plaintiffs' remedial proposal should not be adopted. (*See e.g.*, Doc. No. 178 at 2-3 ("For a number of years there continued to be, at best, benign neglect of the State's obligations to desegregate and, at worst, outright hostility and footdragging.").)

A. The Court Has Already Identified Key Components of a Potential Remedial Plan.

As this Court previously held, the starting points of the remedial order in this case should include:

- "Expansion of mission and program uniqueness and institutional identity." (2013 Op. at 15.)
- Development of programmatic niches in areas of excellence in at least two high-demand clusters within the next three to four years. (*Id*. at 59.)
- Likely transfer or merger of select high-demand programs. (*Id*. at 59.)
- The creation of collaborative programs. (*Id*. at 60.)
- Policy revisions for the "avoidance of such duplication" as proven in this case. (*Id.* at 59.)

Plaintiffs suggest that the Court should, as has been done in other cases, devise a reasonably comprehensive remedial order in the first instance. This order would mandate the implementation of the key components of the remedial plan: (i) the creation of distinct academic niches of unique and high-demand programs; (ii) the enhancement of the HBIs; and (iii) the reform of the State's program approval process. (PRX 312 at 9 ¶ 49.) Plaintiffs also suggest that the Court should appoint a Special Master to collect information and provide some of the financial and logistical details that are needed, as well as a Monitoring Committee to ensure compliance with the order. (*See, e.g.*, PRX 439 at 52; 1/18/17 PM Trial Tr. at 34-35 (Allen).)

The Court shall adopt the general parameters of Plaintiffs' remedial proposal, as aptly outlined by Dr. Allen during his direct testimony:

> I would simply conclude by reemphasizing the three strategies that guided our work and that we are confident, based on extensive data and the records and experiences and lessons learned from earlier remedial plans, those strategies, to repeat, would consist of the establishment of programmatic niches, two to three, at the HBIs, and programmatic niches that have represented within them a corpus or a set of unique, high-demand programs, and

> programmatic niches that represent areas of excellence, that become the basis, become the identifiers for distinctive academic programs within, and academic programming within those institutions.
>
> Secondly, in order to achieve that, that goal with programmatic niches, it is essential that the affiliated programs, the scaffolding around those programs be enhanced as well. So if one creates, say, the distinctive niche, one has to be sure that the affiliated programs are of higher quality as well, that the students that are sent in to those advanced courses, for example, in that niche, have been thoroughly and well prepared. That the quality of faculty is lifted across the institution and what have you.
>
> And then, lastly, it's the strategy of simply monitoring and oversight of the approval process because all of the good work can be undone if unnecessary duplication, unnecessary program duplication is allowed to continue.

(1/19/17 AM Trial Tr. at 34-35 (Allen).)

B. A Sound Evidentiary Basis Exists for the Remedial Components.

The Court finds that the three prongs of Plaintiffs' remedial structure -- programmatic niches, enhancements, and program approval process reform -- are an appropriate basis on which to structure its remedial order. The Court will now discuss the evidentiary basis and proposed implementation of the remedial plan.

1. Special Master and Monitoring Committee

Because of the longstanding constitutional violation in the case, the State's failure to address the violation since it was found in October 2013, and the State's failure to make a good faith effort to propose a remedial plan, the State's implementation of the remedy will require oversight by experts with relevant experience.

The Court intends to use both a Special Master and a Monitoring Committee to implement the remedial plan. The general division of responsibility shall be as follows. The Special Master will be relied upon by the Court to conduct further fact finding in order to finalize

and add specific criteria (*e.g.*, a timetable and priority of program creation or transfer, funding levels for new programs) to the remedial order as directed by the Court. The Monitoring Committee will be appointed to review and receive updates on a periodic basis and to report to the Court regarding the same. In short, the Special Master will assist the Court with completion and implementation of the remedial plan, while the Monitoring Committee will be charged with overseeing the plan after it is finalized.

As discussed above, there is a considerable amount of precedent for the use of special masters, monitors, and monitoring or expert committees in higher education desegregation cases. As Dr. Allen explained, "[a] special master or experts committee that brings the big picture and helps to make the decision . . . what's best for the system writ large" should be a supplement to the "more secular considerations of a faculty member in a particular program or of an institution," in order to address "the broader responsibilities and needs of the system to desegregate." (1/18/17 PM Trial Tr. at 34-35 (Allen).) Such a role will typically last for a period of time, such as "five to ten years" after which "the system returns to self-governing." (*Id*. at 35.) Such monitors were used in previous desegregation cases "with remedial proposals and plans: Tennessee, *Knight* in Alabama, *Ayers*." (*Id*. at 36.) "A special master, an experts' committee would look at all the pieces in the way that is required to figure out what the timing and the scheduling would be, what frankly makes the best sense and what comes first or perhaps doesn't even come at all." (*Id*. at 87.)

The appointment of a Special Master is clearly necessary given that the State never sought input from its own institutional officials on an appropriate remedy, not even the TWIs. For example, Dr. Hrabowski, the President of UMBC, was never asked for his perspectives on what remedies could help desegregate the HBIs. (1/30/17 Trial Tr. at 120 (Hrabowski).) Dr.

Schmoke of the University of Baltimore also indicated he was "not invited to participate in such a conversation with the HBIs by the State, either MHEC or the University System." (2/9/17 Trial Tr. at 136 (Schmoke).)

Nor has the State done anything to identify an expert who might assist the Court. When asked if they could recommend an expert in the field to advise the Court, both Dr. Hrabowski and Dr. Schmoke indicated they had not been asked and were not prepared to answer the question. (1/30/17 Trial Tr. at 160 (Hrabowski); 2/9/17 Trial Tr. at 136 (Schmoke).) Not only did the State fail to seek out such advice during the pendency of the case, but it objected to the Court utilizing an appropriate expert on remedial issues, objecting to each of Plaintiffs' proposed experts as well as the use of such experts altogether. Accordingly, the Court believes it would be fruitless to expect the parties to agree upon a Special Master. Instead, the Court will select a Special Master, seeking in particular an authority who would have appropriate knowledge or experience relevant to the issue of attracting other-race students to HBIs. The Court notes that although he was unprepared to identify an expert, Dr. Hrabowski indicated that "it should be someone who's had experience, obviously, in attracting whites to the HBCUs, HBUIs. I mean, it would have to be somebody -- that is the expertise we're talking about here, if I understand. People don't say it enough. But that is really what we're talking about: How do we attract whites to HBCUs?" (1/30/17 Trial Tr. at 160 (Hrabowski).)

The Court will entertain submissions within 60 days of its remedial plan order from the parties, any affected institution, or any interested third party regarding an appropriate candidate to serve as Special Master. The Special Master, in turn, will develop a process for the nomination and structure of the Monitoring Committee. It will be expected that several members

of the Monitoring Committee will likewise have had substantial experience working with HBIs. The Court shall appoint both the Special Master and the Monitoring Committee.

The Special Master shall be charged with assisting the parties and the Court in establishing the detailed parameters for the final remedial decree as discussed above. The Monitoring Committee shall be charged with monitoring and reviewing compliance with the final decree, including but not limited to: (i) monitoring and approving USM and MHEC actions involving the creation of new, transferred, or modified academic programs at all institutions, including ensuring that USM and MHEC are managing the creation of the remedial niches and other programmatic improvements at the HBIs and not approving unnecessary duplicative programs at the TWIs; (ii) receiving quarterly reports from MHEC certifying compliance with the remedial decree; (iii) reviewing such reports and certifying compliance or non-compliance to the Court; and (iv) assisting as directed by the Court for a period of 10 years.

The parties shall submit a status report to the Court every 90 days for the first year following the entry of the remedial order. Thereafter the parties shall submit a status report and appear for a status conference every 12 months, for a period of 10 years. The parties shall meet with the Special Master as directed by the Special Master, and shall meet with and/or report to the Monitoring Committee as directed by the Monitoring Committee. Any interested party may petition the Court for a status conference or other action at any time for the purposes of carrying out the remedial order.

2. Programmatic Niches

As explained by Dr. Allen, a successful remedy should include "distinctive niches that have associated with them unique, high-demand programs." (1/18/17 PM Trial Tr. at 38 (Allen).) The remedy should include "not simply one or two such programs, but a critical mass or a corpus of such programs that then move that institution and that system forward." (*Id.*) Dr.

Allen, along with Dr. Conrad, "focused on creating programs within niches to enhance institutional academic identity; that is, wanting to build distinctive programmatic niches that were anchored in academic programs that . . . were unique and that were high-demand and, further, building around those programs, strengthening the programs around that are affiliated with that niche." (*Id.* at 85-86.) A general summary of the academic niche proposal was given by Dr. Allen at trial:

> A fully developed academic niche reasonably uses white enrollment as one of the standards. And it is the case in our recommendation that each school should have, in modest and minimal terms, at least two or three niches. We basically settled on recommending two niches for Coppin and Bowie State, and recommended three for Morgan State and University of Maryland Eastern Shore, and recommending three for those two programs because they have expanded missions. Morgan having been designated as the urban research university in the System, and Eastern Shore having been designated as one of the land-grant institutions for the state. Each of those two to three niches, when fully developed, should contain a meaningful number of unique, high-demand programs and a meaningful mix, a meaningful number of graduate programs, with related and affiliated undergraduate programs.

(1/19/17 AM Trial Tr. at 32-33 (Allen).)

Numerous witnesses testified about the potential for such programmatic niches to attract other race students. In addition to Drs. Conrad and Allen, Dr. Juliette Bell (currently the President of UMES) testified that at Fayetteville State University (an HBI at which she served for 17 years), they developed new academic programs to grow enrollment, serve the workforce needs of the region, and diversify the student body. (1/10/17 AM Trial Tr. at 96-97 (Bell).) Dr. Bell noted in particular the importance of focusing on "high demand programs" in meeting those two goals. (*Id* at 97.) Such programs "would be attractive programs that hopefully would encourage students to choose that university for the program that was being offered." (*Id.*) Dr. Bell specifically noted that "one of the goals of the State, I believe, for the HBCUs, was to

increase the number of non-African American students at those institutions." (*Id*. at 98.) To do so, the State both supported Fayetteville's efforts "for new program development" and provided "special funding" to "help develop new programs." (*Id*.)

Bowie State president Dr. Mickey Burnim described the components of a decree covering HBIs in the state of North Carolina in a similar way. According to Dr. Burnim, the decree "included a number of new degree programs to be implemented at each of the HBCUs." (1/11/17 AM Trial Tr. at 9 (Burnim).) He explained that the state's commitment "was to assist in the development of those programs, the implementation of them, along with the support that would be necessary." (*Id*. at 10.) In addition, there were also "some things that were done with respect to the recruitment and admission of students that were designed to diversify enrollment at the HBCUs," including grants to students for the purpose of "attracting other race students to those institutions." (*Id*. at 11.)

Based on the substantial evidence provided at the remedies trial, the Court will adopt a remedial plan to create distinct programmatic niches anchored in unique and high-demand programs that will enhance the institutional identities of Maryland's HBIs. The remedial plan will establish institutional identities at all four HBIs based on their programmatic niches and the degree programs they offer within those niches. The remedial plan will adopt Plaintiffs' proposal for three distinct programmatic niches at Morgan and UMES and two each at Bowie and Coppin. The niches and programs to be created at each HBI are summarized above. The Court specifically orders that, in addition to the Special Master, the Plaintiffs and their experts shall also have free and unfettered access to meet with and discuss all aspects of the remedial plan with the HBIs, the TWIs, and any MHEC or USM personnel.

The State shall undertake at a minimum the following steps to create programmatic niches which are anchored in unique and/or high-demand programs at the HBIs that are designed to establish institutional identities which will attract students of all races to the HBIs. The State shall create 2-3 programmatic niches at each HBI which are substantially similar to the Plaintiffs' Remedial Proposal. The specific timetable and funding of each niche will be determined by the Special Master in consultation with the Monitoring Committee, HBIs, MHEC, TWIs, and Plaintiffs and will be substantially similar to the Plaintiffs' Remedial Proposal. The Special Master, in consultation with the Monitoring Committee, HBIs, and Plaintiffs, will determine the process and timing for implementation (for example, the Special Master may determine that a particular school should start by developing one niche). Based on a budget determined by the Special Master, in consultation with the HBIs, MHEC, and Plaintiffs, the State shall provide sufficient additional funding (over and above current and future base funding levels) to support the establishment of such new programs and to supplement the funding of the same for the first five years of such new programs, which will be expected become self-sustaining in no more than five years. The issue of costs will be discussed in more detail below.

3. Transfers

Of the 10 programmatic niches proposed, 4 include the proposed transfer of programs from TWIs: the Criminal Justice niche at Coppin, the Business and Management and Engineering niches at Morgan, and the Computer Science niche at Bowie. (PRX 21 at 5, 7, 10, 16.) Defendants spent a disproportionate amount of time at trial attacking these transfer proposals, particularly the transfer of UMBC's engineering programs to Morgan and UB's Criminal Justice programs to Coppin.

The entirety of the State's case regarding transfers was relatively simple, *i.e.*, that the TWIs from whom the programs would be transferred don't want the programs to be transferred.

(*See, e.g.*, 1/30/17 Trial Tr. at 160 (Hrabowski) ("Right now I am so focused on trying to protect my programs at UMBC").) Every single witness representing the interests of a TWI from which Plaintiffs proposed to transfer a program indicated they had *no* objections to Plaintiffs' remedial proposal *other than* the plan to transfer programs from that TWI. (*See, e.g.*, *id.* at 156-57; 1/31/17 Trial Tr. at 73-74 (Simmons).) As President Hrabowski stated, "we support [the HBIs] getting the programs that will help them . . . we just don't want them to take our programs." (1/30/17 Trial Tr. at 156 (Hrabowski).) Of course, it is not surprising that administrators and alumni of these schools and programs wish to "protect" their programs. Their self-interest cannot supersede the Court's obligation to craft a remedial plan to achieve "the greatest possible reduction in the identified segregative effects." *Knight*, 14 F.3d at 1541.

Defendants also presented testimony regarding various problems and harms that would allegedly be caused by such transfers. While not dismissing such concerns entirely, the Court simply cannot countenance the State and the TWIs continuing to "pour concrete" after program duplication was rampant and the State was obligated to remedy the same. (PTX 8 at 8.) Moreover, the problems supposedly attributable to such transfers are exaggerated and belied by experiences elsewhere, such as in the state of Georgia where a massive realignment process has been undertaken. As Plaintiffs' expert explained:

> Those of us who are specialists in the area have been following this realignment of the system with great interest and very closely and have been impressed by the ability of the State of Georgia and the constituent institutions to -- to manage the realignment. And it's very striking, the evidence of the benefits flowing from such a realignment: improvement in the academic reputations and strength of the participating campuses; clear cost savings; the few, if any, problems in terms of accreditation. Just a whole set of issues that … Dr. Lichtman would … imply are not manageable are in this concrete demonstration being very skillfully and successfully managed.

(2/21/17 Trial Tr. at 120 (Allen).) The Georgia realignment was "rolled out over time" and "impacts the entire system" of roughly 26 institutions. (*Id.* at 120-21.)

Accordingly, the Court believes that if such transfers are ordered, disruption can be minimized through appropriate planning and the cooperation of all parties involved. As Plaintiffs' expert explained, "it's absolutely imperative that these changes, transfers in this case, be very, very respectful of all the stakeholders; and that includes students, faculty, administrators, and alumni." (1/24/17 Trial Tr. at 163 (Conrad).) If such steps are taken, the Court is confident that beneficial change can be achieved.

However, as discussed in more detail above, the Court will limit the proposed transfers from UMUC to exclude the military base and overseas enrollees, in light of the Court's admonition that the parties consider compromise, and for the practical reasons addressed primarily by General Miles. (2/22/17 Trial Tr. at 71-73 (Lapovsky); 2/7/17 Trial Tr. at 13-25 (Miles).) As discussed above, in considering the transfer of programs from UMUC, the Court shall instruct the Special Master that duplicative programs offered by UMUC may be transferred, but that the Special Master would have the discretion to recommend a more limited transfer with respect to a particular program (such as permitting UMUC to continue to offer the programs only to out-of-state students). In addition, the Court will not order the transfer of the parts of programs where UMUC is working under a DoD contract or engaging in specialized programming targeted toward members of the military stationed out-of-state or outside the U.S.

4. Other Enhancements and Assistance

As Plaintiffs' experts emphasized, other enhancements and support for the HBIs' programmatic niches will help ensure they are effective. Various factors such as campus attractiveness, faculty support, scholarships, marketing, recruiting, collaborative programs, and professional constituencies are also effective, particularly where there is a demonstrated capacity

for growth or where an HBI is already drawing a substantial number of white students. (PRX 312 at 30-31 ¶¶ 181-88.) These enhancements must be a supportive, not a primary strategy. As Dr. Allen explained, "the sort of scaffolding, the affiliated programs, the associated programs around that niche should be improved and be enhanced as well academically so that the whole becomes greater than the parts and the effect becomes an amplified and beneficial effect." (1/19/17 AM Trial Tr. at 33 (Allen).)

Accordingly, the Court will require the State to provide funding for supportive enhancements at the HBIs, including but not limited to funds for campus improvements, faculty support, scholarships, marketing, and recruiting activities. By way of example, the State itself presented evidence at trial that enhanced scholarships can be used to attract other-race students. The Court will include enhanced HBI scholarships in the remedial decree, although as a supplement, not a substitute for, new academic programs. (*See* 1/18/17 PM Trial Tr. at 22 (Allen) ("scholarships matter, but they are not sufficient").)

While the Court also encourages collaborative programs, collaborative programs alone—as with scholarships--are not sufficient to desegregate and that the modest collaborations suggested in Defendants' remedial proposal are insufficient. As Plaintiffs' expert testified regarding collaborative programs:

> I think that [collaborative programs] could conceivably offer a desegregative potential. But the way these collaborations have been organized and implemented to this point, they do not accomplish that goal. And one of the reasons they don't accomplish the goal is that, for example, they don't, as they're currently -- the cooperative programs are currently organized, they don't accomplish that end of, for example, enhancing the academic identity of the historically black institutions. And as we testified earlier, too often there are collaborations between unequal institutions, so they're not full collaborations and they don't really yield the goal of desegregation.

(2/21/17 Trial Tr. at 109 (Allen).) As Dr. Allen concluded, "collaborative programs are not drawing white students in any numbers to the historically black institutions." (*Id*. at 110.) He explained further:

> If it's the kind of collaboration or joint program that has occurred to this point, then one has little reason to expect that it will have desegregative impact. However, if it is collaboration or joint programs that are of a different sort -- for example, programs that are structured in such a way that to complete the program, one has to take a portion of it at a traditionally black institution and complete it, say, at a traditionally white institution or the reverse. But to this point, the kinds of joint programs that have been offered and implemented just are not sufficient. They will not -- they have not been able to desegregate the system.

(2/21/17 Trial Tr. at 110-11 (Allen).)

The Court shall order $50 million over a ten year period per HBI in enhancement funds for marketing and scholarships focused on making the HBIs attractive to students of all races, and $50 million over a ten year period per HBI to strengthen the support for the academic niches through upgrades in areas such as equipment, materials, and support for faculty and students for a ten year period. The funds do not have to be distributed equally over the ten years but should be distributed so that the desegregative effect is maximized.

5. Program Approval Process

As recognized in the Liability Opinion, there are significant deficiencies in the State's program approval process. MHEC's "purported safeguards are only forward facing" (2013 Op. at 50), and "failed to prevent additional unnecessary duplication, to the detriment of the HBIs. (*Id.* at 51.) It is not sufficient for MHEC to merely offer "good" reasons in "approving a particular duplicative program." (*Id*. at 56-58.) Rather, the approval process must require a "thorough analysis of whether there were less segregative means of obtaining the same goal" such as placing the program at an HBI or offering additional HBI funding. (*Id*.) The State's

practice of program duplication "does not comport with best practices in higher education." (*Id.* at 58.)

The State's "new" approval process remains deficient. *First*, it addresses "unreasonable" rather than "unnecessary" duplication. The distinction is crucial -- "unnecessary" duplication considers less segregative alternatives. "Unreasonable" duplication has been justified by market demand or alternative delivery rationales. For example, the Towson/UB Joint MBA program in 2005 was rejected under the "unnecessary" standard but approved under the "unreasonable" standard. *Second*, the approval process allows -- but does not mandate that -- MHEC eliminate even unreasonable duplication. The provision merely states that MHEC "*may* make a determination that an unreasonable duplication of programs exists." Md. Code Ann., Educ. § 11-206(e)(4). *Third*, the process is reactive, not proactive: it does not seek to dismantle existing program duplication. (PRX 312 at 31-33 ¶¶ 189-203.) Accordingly, the remedial plan shall include the following revisions to the State's program approval process: (i) the "unreasonable duplication" standard shall be replaced in all instances by the "unnecessary duplication" standard; (ii) the State must adopt a desegregative impact analysis whereby a program may only be approved if it is proven it will not infringe on any HBI's programs; (iii) before approving any new program at a TWI, the State must consider whether it would be less segregative, educationally sound, and practicable to place that program at an HBI; (iv) the State must adopt a system to proactively identify degrees for future development within the HBI niches, as well as outside to niches to the degree that such programs fit within the mission and institutional strengths of the HBIs and are in areas of high student demand; (v) the State must prevent TWI expansion into areas where the HBIs already have programs; and (vi) the Monitoring Committee will review all program approval applications and provide input to MHEC.

The State shall revise its program approval regulations, as well as all policies and practices, formal or informal, by removing any references to "unreasonable" duplication and to adopt or implement instead the legal standard of "unnecessary" duplication. It shall not be grounds for showing "unnecessary" duplication that market demand justifies the program duplication, absent the representation of geographically proximate HBIs that they would be unable to fulfill that market demand even with adequate state support.

The State shall also be required "to give priority consideration to placing any new under-graduate, graduate, or professional degree programs, courses of study, etc., which may be proposed, at traditionally black institutions." (43 Fed. Reg. 6658 at 6661 (Feb. 15, 1978), DRE 162 at 183.) The State should give priority to the HBIs when considering new programs and offer the HBIs the right of first refusal with respect to new programs where educationally sound and practicable.

MHEC shall be charged to protect the HBIs' distinctive niches—including current and new programs--from infringement by conducting a desegregative impact analysis in which the State must consider whether it would be less segregative to place a new program at an HBI. MHEC will also be charged with proactively identifying degrees for future development within the HBI niches, and prevent TWI expansion into these programmatic areas and niches by considering whether such programs are a "promising area of growth" for an HBI.

6. Costs

The most difficult issue before the Court is determining the funds that the State should be obligated to commit to the remedial plan. The Court concurs with the testimony of Dr. Lapovsky that insufficient evidence has been made available by the State to assign a specific and final cost to the new programs the Court seeks to implement. The Court will order the Special Master to consult with the parties, the HBIs, the TWIs, USM, and MHEC to gather information which will

enable the Special Master to approve a budget for the programs in the remedial proposal on an annual and overall basis.

At this point, the Court is not equipped to order a specific funding level for every component of the remedial order. The Court concurs with Dr. Lucie Lapovsky, who indicated that sufficient information was not made available by the State, the HBIs, and the TWIs in order to reliably calculate a cost or budget for the new programs proposed by Plaintiffs. (1/17/2017 PM Trial Tr. at 39-40 (Lapovsky).) Since Plaintiffs and their experts did not have "access to personnel at the HBIs and TWIs" they were unable to provide the Court with appropriate estimates. (*Id*. at 77-78.) However, the Court believes (and agrees with Dr. Lapovsky) that a realistic budget for each element of the remedial proposal could be determined expeditiously. (*Id*.) With appropriate access given to all -- the Special Master, the Plaintiffs and their experts, and all State and institutional representatives, precise cost estimates should be devised. For example, Dr. Wilson testified that Morgan would "be very open" to working with a special master or monitor "to come up with a more precise cost estimate." (1/9/17 PM Trial Tr. at 43 (Wilson).) Moreover, appropriate cost control can be achieved because "these programs will have to be phased in over time." (1/18/17 PM Trial Tr. at 87 (Allen).)

Accordingly, the Special Master will have, as a priority assignment, to work with the parties to arrive at a budget for the elements of the remedial order. The Court specifically assigns to the Special Master the authority to determine the appropriate funding levels for the new programs being established in the ten (10) niches of Plaintiffs' remedial proposal. The Special Master shall, in consultation with the HBIs and other relevant parties, first establish the proposed funding levels to cover the start-up and operating costs for the proposed niches at the HBIs. In estimating the costs of the new programs, the Special Master should take into

consideration variables such as: (i) the number of faculty required to teach the curriculum; (ii) the number of staff to support the faculty and program; (iii) operating budget needs; (iv) equipment; and (v) other operating expenses.

This initial calculation of the programmatic costs will be exclusive of other institutional costs to support initial enrollment, capital needs, or costs for other enhancement features that are to be included in the remedial order. As discussed below, in addition to the resources required to support the basic curriculum, the Special Master should also estimate the enrollment in the program and include faculty, staff, and operating expenses to support any projected enrollment beyond that needed to support the basic curriculum. Finally, the Special Master will assess the issue of additional resources to cover enhancements (including financial aid), and capital costs, where necessary. These amounts do not include the Special Master or Monitoring Committee expenses, which shall be borne by the State.

Plaintiffs' funding expert described the appropriate method for estimating such costs at trial:

> The key data points would be to start with what's the impact on the enrollment of the institutions as a whole. Is it going to grow, stay the same, or decline? So that I would assume at the end of the day, you wanted impact on State funds.
>
> Number 2, for each institution, look at each program; look at what the projected enrollment for that program is; where relative to the enrollment at the institution those students were going to come; and look at -- work them through the system, see how many start and how many are projected to graduate, so you can see what the enrollment is each year at the institution.
>
> Then talk about how -- what courses would be -- they would have to figure out what courses they were going to teach, how many of those courses are already offered or could be offered by existing faculty, and are those faculty already fully employed at the institution or could they add this to their workload. So come up with an estimate of total faculty and new faculty and then figure out how you're going to -- what type of faculty you're going to

> use, full- or part-time faculty, since they have very different costs associated with them. Do you need any support staff? Do you need any equipment? And then -- so for each program, that's what I would do.
>
> And then looking at the enrollment change for the institution as a whole, cost out whether it was going to have -- what the cost implications for the institution. So if the institution could absorb these additional students or it might not change the enrollment at all, you know, there might be no costs outside of the direct instructional ones or there might be significant costs. It would all depend on the individual circumstance at each of the institutions.
>
> And then on the capital side, to do an analysis of how their facilities are currently utilized, how close they were to capacity, what kind of specialized facilities they need, and what the cost impact would be.

(1/17/17 PM Trial Tr. at 81-82 (Lapovsky).)

With respect to the program-specific operating cost estimates for the ten niches proposed, the Court shall recommend a proposed funding range to provide some context for the Special Master and the parties. This guidance is intended to reflect -- in present day dollars -- a range of the possible operating costs (and only the operating costs) of the new program proposals in the remedial plan. The range -- approximately $230 million to $650 million -- is based on the current record with respect to the likely (five-year) cost of the new programs, as well as consideration of the same as a share of the State's annual expenditures. This range is intended to provide guidance to the parties and the Special Master in terms of the likely funding levels for the operating costs of the programmatic niche elements of the remedial plan.

The Court arrived at this range by using some of the specific program submissions from the HBIs that the Court finds to have reasonably pertinent cost information and correspond reasonably well to Plaintiffs' proposed niches. Specifically, the Court relies on the proposal submitted by UMES in its response to Plaintiffs' Interrogatory Number 19, which contains various cost estimates for some of the new programs common to its and Plaintiffs' proposal.

(*See* PRX 2.) The Court will also rely on the proposal submitted by Morgan State in response to Plaintiffs' Interrogatory Number 19, which similarly contains cost estimates for relevant programmatic niches. (*See* PRX 402.) The Court has chosen two niches as exemplars based on their similarity to niches in Plaintiffs' remedial proposal. The Court finds that the operational funding projections for those two niches are as follows.

UMES Agriculture Cluster Exemplar. UMES included estimates for this cluster (substantially similar to one of the Conrad/Allen niches) in its submission. (PRX 2 at 9-12.) Those estimates include approximately $1,772,000 for Veteterinary Technology, $15,120,000 for Veterinary Medicine, $5,800,000 for Food Science and Safety, and $1,223,000 for Family and Consumer Science. The total programmatic cost (excluding capital costs and other enhancements) is approximately $23,915,000.

Morgan Urban Sustainability Cluster Exemplar. Morgan State included estimates for this cluster (substantially similar to one of the Conrad/Allen niches) in its submission. (PRX 402 at 21.) Those estimates include five-year costs for faculty, institutional support, equipment and supplies, and accreditation (among other things). (*Id*.) The total programmatic cost (excluding capital costs and other enhancements) is approximately $64,576,000.

Based on these two niche examples, the Court arrived at a funding range of $239,150,000 (*i.e.*, the cost of the lower UMES niche times the number of total niches contained in the remedial proposal *(i.e.*, ten) to $645,760,0000 (*i.e.*, the cost of the higher Morgan State niche times the number of total niches contained in the remedial proposal (*i.e.*, ten). This recommended funding range is intended to support the possible aggregate range of funding exclusively for the operational funding of the ten (10) proposed niches. This range does not include other enhancements, which will be addressed separately, or necessary capital or facilities

expenditures, which will also be determined separately on a case-by-case basis. With respect to capital costs, however, the Court agrees that Dr. Lichtman's capital cost estimates are not tied in any way to the proposed niches and a demonstrated need for new or renovated space with respect to each. In fact, there is evidence in the record that many programs would not need any significant capital expenditures, and the Court charges the Special Master to make that determination. The Court will instruct the Special Master to determine cost estimates, with input from the HBIs, only for those improvements that are absolutely necessary to implement specific features of the remedial order.

Finally, the Court finds that the likely cost ranges here are fully consistent with the funding levels in desegregation cases in other states, all of which are over a decade removed. In Tennessee, the plaintiffs offered a "conservative estimate" that the total relief obtained prior to the 2001 Consent Decree was approximately $320 million, an estimate that reflected the remedial actions taken pursuant to the 1984 Settlement as well as the prior, court-ordered merger. (Brief of Plaintiffs, *Geier v. Sundquist*, 2003 WL 25745337, at *15-16 (6th Cir. May 8, 2003).) The 2001 Consent Decree provided additional relief in the amount of approximately $75 million, resulting in a total amount of approximately $395 million awarded. (*Id*.)

In Mississippi, the remedies adopted to desegregate the higher education system were primarily outlined in the district court's 1995 remedial decree and 2001 settlement agreement. (*See* Final Judgment, *Ayers v. Musgrove*, No. 4:75CV009-B-D (N.D. Miss. Feb. 15, 2002), https:// casetext.com/case/ayers-v-musgrove-5.) Between the remedial decree and settlement agreement, the HBIs were to receive $516,980,000 in funds to support new and enhanced programs, specific capital improvements, and other-race recruitment and scholarships.

In Alabama, the two court-ordered remedial decrees resulted in Alabama's two HBIs, Alabama State University (ASU) and Alabama A&M (AAMU), receiving a total of $215 million in state funding to eliminate the vestiges of segregation. (Brief for Appellee, *Knight v. Ala.*, 2007 WL 3690480, at *11 (11th Cir. May 21, 2007) (citing the 2005 Annual Report submitted to the court).) The 2006 settlement further required the State to provide over $33 million in capital funding to AAMU and ASU, and to support a request to the legislature for an additional $12 million in capital funding for these two universities. (*Id*. at *13.) The Court expects that in present day dollars, the funding of the remedies ordered in this case will be consistent with the remedial expenditures in other higher education desegregation cases.

IX. DEFENDANTS' *DAUBERT* MOTION MUST BE DENIED.

Just months before trial, Defendants filed their *Daubert* motion, arguing that the opinions of Drs. Conrad and Allen that programs (including unique and high-demand programs) have the potential to attract other-race students to the HBIs are unreliable and should be excluded. Unbelievably, Defendants contend there is no basis for Plaintiffs' experts to opine that unique and high-demand programs have any desegregative potential. Defendants' motion misses the mark on numerous grounds, as has already been previewed in Plaintiffs' legal memorandum in opposition to Defendants' motion, which is incorporated herein by reference. (*See* Doc. No. 528.) The flaws in Defendants' motion have become even more evident after the detailed testimony heard during trial.

First, extensive evidence supporting the proposition that programs have the potential to attract other students has *already* been admitted in this case, and accepted by the Court. Based on that evidence alone, Plaintiffs' experts may reliably advance this proposition as part of their remedial theory. *Second*, the evidence shows that Drs. Conrad and Allen have extensive experience and specialized knowledge -- of the type specifically contemplated by Rule 702 --

enabling them arrive at their opinions in this case. *Third*, the evidence presented at trial showed overwhelmingly that Conrad and Allen had reliable bases for their opinions. *Fourth*, Defendants' criticisms of these experts' methodologies are legally and factually flawed. *Finally*, any disagreement about the validity of these opinions go to weight not admissibility, and do not support the exclusion of the opinions in their entirety.

The Court notes that although Defendants' motion asserts generally that programs do not have desegregative potential, the only two specific grounds they actually raise for the supposed unreliability of Conrad and Allen's opinions are that the so-called "1994 DOJ 'Factors' Study" and the "2016 'Quantitative Analysis of Programs Enrolling More than 10 White Students' are flawed. (*See* Doc. No. 495 at 16-32, 36-46.)[14] As previously outlined, although there are multiple grounds supporting the admissibility of the opinions of Drs. Conrad and Allen on other grounds, the Court also finds that the 1994 DOJ Study and the 2016 Enrollment Study are reliable bases for their opinions.

A. Defendants' Motion Ignores the Fact that Evidence Has Already Been Admitted -- and the Court Has Already Accepted -- that Programs Have the Potential to Attract Other-Race Students.

The entire focus of Defendants' motion, as evidenced by its title, is not that Conrad and Allen's remedial plan is deficient but that there should be no evidence permitted "concerning the effects of 'programmatic niches,' 'high-demand' programs and 'unique' programs on HBI enrollment by other-race students." (*Id.* at Title Page.) The Court finds this proposition remarkable in light of the overwhelming amount of previously existing evidence, much of which was admitted at the first trial and is discussed above in connection with the rationale for Plaintiffs' remedial plan.

[14] The Court will refer to the first piece of evidence attacked by Defendants as the "1994 DOJ Study" and the second as the "2016 Enrollment Study."

A 1977 OCR Guidance, for example, indicated that states should "to give priority consideration" to placing certain programs at "traditionally black institutions" to aid in desegregation. (*See* DRE 162 at 183.) In Maryland's Partnership Agreement with OCR, the State committed to implementing unique, high-demand programs at the HBIS to ensure "that these institutions attract students regardless of race." (PRX 165 at 37.) Maryland's Cox Commission recommended the development of programs at the HBIs "that will broaden the appeal of the institution to a more diverse student body." (PTX 22 at 20-21.) Maryland's 2006 Committee I Report specifically noted that the development of unique graduate programs had "enabled Morgan to attract significant non-black enrollments." (PTX 8 at 77.) While Defendants and their experts were free to contest how successful specific programs may be in attracting other-race students to specific HBIs in the future, there was clearly sufficient evidence in the record before and now for the Court to entertain argument, fact, and opinion testimony regarding that potential.

Not only was such evidence admitted, but the State tried and failed to advance successfully similar arguments at the first trial. Defendants made these same arguments throughout the trial, starting with their opening statement: "Dr. Conrad seems to simply suggest that if you offer programs at HBIS, that . . . would draw students of all races" and indicating the Court would "hear from the experts for the State in that regard." (1/3/12 AM Trial Tr. at 83.) The State specifically argued in the Pretrial Order that unique high-demand programs did not affect student choice or attract white students. The State argued:

> Ultimately, Plaintiffs' analysis fails because they seek a remedy -- unique programs at HBIs -- without any consideration of whether existing allegedly duplicative programs actually have segregative effects and, even if they do, whether they are nonetheless educationally justified and cannot practicably be eliminated.

(Doc. No. 272 at 26.) In fact, the parties both presented arguments and evidence regarding the effects of unique programs.

As a result, based on the overwhelming authority already presented regarding the potential for unique and high-demand programs, this Court had already *accepted* the premise that unique high-demand programs can attract other-race students to the HBIs. The Court held in its 2013 Opinion that programmatic niches and high-demand programs were a "promising starting point" for the remedies phase. (2013 Op. at 59.) In discussing what remedies would likely be required, the Court began by suggesting the development of niches that included unique and/or high-demand programs to create institutional identity at the HBIs:

> As embodied in the OCR Partnership Agreement, a remedy for unnecessary program duplication likely includes both avoidance of such duplication and "expansion of mission and program uniqueness and institutional identity at the HBIs." (Final Report on the OCR Partnership Agreement (February 15, 2006), PTX 8, at 73.) Dr. Allen was tasked by the Coalition with developing remedies, and his recommendation that "[e]ach HBI should develop programmatic niches of areas or areas of excellence in at least two high-demand clusters within the next three to four years" appears to be a promising starting point.

(*Id*.) The Court specifically contemplated that a remedy is likely to include revised policies and practices to ensure both the "avoidance of such duplication" and the "expansion of mission and program uniqueness and institutional identity at the HBIs." (*Id*. (quotations omitted).) The Court also found that "[i]t is also likely that the transfer or merger of select high-demand programs from TWIs to HBIs will be necessary." (*Id*.) The Court agreed that unique, high-demand programs are "a key reason white students attend HBIs in other states," and that without them the HBIs "are identified by their racial history as opposed to [their] programs." (*Id.* at 46.) Thus, for racial desegregation to occur at Maryland's HBIs, they must offer programs *not* offered at geographically proximate TWIs. (*Id*. at 52-53.)

Accordingly, the Court already found there was *already* an ample record to support Dr. Conrad and Allen's opinions regarding the potential for programs to attract other-race students. The Court would note that it is not alone. Other courts in desegregation cases have likewise recognized such program strategies as having the potential to desegregate institutions. In *Ayers*, the court found that "well-planned programs that respond to the particular needs and interests of local populations can help to desegregate historically black institutions." *Ayers*, 111 F.3d at 1213-14. The evidence there established that "programs not duplicated at proximate institutions, targeted to local demands . . . have had success in attracting white students to historically black institutions in other states." *Id.* In *Knight*, the court similarly found that there was a "strong symbiotic relationship" between programs and institutions," and that an effective remedy would necessitate generating a "critical mass" of other-face students. 900 F. Supp. at 315-320.

Defendants' arguments would fail regardless of the expert testimony submitted at trial. The focus of the trial, after all, was what types of remedies the Court should adopt to remedy the constitutional violation found. For their part, Defendants presented *no expert testimony whatsoever* in support of the State's remedial plan and how they contended it would remedy the violation found. They presented no expert support for the potential for the State's plan to work. Despite the burden to come forward with a remedial plan being borne by the State, Defendants presented *no expert testimony* demonstrating the potential for *their* plan to work. Yet they attack the extensive work done by Plaintiffs' experts as being insufficient to support the potential for Plaintiffs' plan to succeed. The State's position is disingenuous.

B. Conrad and Allen's Qualifications, Experience, and Specialized Knowledge Render Their Opinions Reliable.

Drs. Conrad and Allen's opinions regarding the potential for unique high-demand programs to attract other-race students to the HBIs fully comport with Rule 702, which permits

testimony that is sufficiently reliable and will "assist the trier of fact to understand the evidence." Fed. R. Evid. 702. The Rule refers to "scientific, technical, *or other specialized knowledge*" from "a witness who is qualified as an expert by knowledge, skill, experience, training, or education." *Id.* (emphasis added). Drs. Conrad and Allen are clearly so qualified in light of their knowledge and specialized experience. In fact, their qualifications regarding programs and remedies are unassailable. Given their background and expertise, they are more than qualified to opine that a valid *premise* upon which to construct their remedial proposals is the concept that unique high-demand programs will attract other-race students to the HBIs. Conrad and Allen epitomize experts with "knowledge, skill, experience, training, [and] education," Fed. R. Evid. 702, in assessing higher education programs and remedies.

Dr. Walter Allen. Dr. Allen is the Allan Murray Carter Professor of Higher Education and Distinguished Professor of Sociology at the University of California, Los Angeles (UCLA). Since 1976, he has consulted and testified regarding the existence of dual and unequal systems of higher education in litigation matters. His analyses have included assessing the disparities of historically black institutions (HBIs) and traditionally white institutions (TWIs), and proposing remedies that would elevate the status of the HBIs and alleviate the effects of historical disparities. (*See* Doc. No. 480-1, Ex. 2.)

Dr. Allen's research activities "have been focused around broad consideration of social inequality, with a particular focus on education and educational inequalities with respect to race, socioeconomic status, and gender." (1/18/17 AM Trial Tr. at 74.) The core of his more recent work has been focused on racial desegregation, higher education, and student choice. (*Id.*) Dr. Allen's publications ("in the vicinity of 200") have focused on "inequality in several of the key areas of American life, education being the primary focus." (*Id.*)

Dr. Allen has extensive experience in higher education desegregation cases. He was an expert witness in the Mississippi cases of *United States v. Fordice* (1992) and *Ayers v. Fordice* (1997), the Alabama cases of *United States v. Alabama* (1987) and *Knight v. Alabama* (1991), and the Tennessee case of *Geier v. Sundquist* (1996). In his capacity as an expert witness, he has offered his opinions about proposed remedies to address dual systems of higher education, including the segregative effects of unnecessary program duplication. (PRX 312 at 3.) As Dr. Allen testified in this trial, all these cases involved "issues regarding the segregation of HBCUs." (1/18/17 AM Trial Tr. at 75.) In all of the cases, "the core of [his] responsibilities had to do with remedy and developing remedial plans or advising the Court on the development of remedial plans." (*Id*.)

Dr. Allen has already been designated and qualified as an expert in this case in the areas of program uniqueness, unnecessary program duplication, sound educational justification, student choice, and *remedies* in higher education desegregation cases. (1/18/12 AM Trial Tr. at 37-38.) Dr. Allen provided expert testimony on all of those issues during the first trial in this case. This Court relied upon and cited his trial testimony in its 2013 Order. (2013 Op.) In fact, the Court would note that Defendants previously *stipulated* to Dr. Allen as an expert in *remedies* and that he proceeded to testify about the desegregative potential of high-demand programs in the first trial. (*See* 1/18/12 AM Trial Tr. at 37-38 (tendering Dr. Allen as an expert on "sound educational justification, student choice, *and remedies*" to which defense counsel stated responded "*I have no objection, Your Honor*.") (emphasis added).)

Dr. Clifton Conrad. Dr. Conrad is a Professor of Higher Education and a Vilas Distinguished Professor at the University of Wisconsin-Madison. Since 1980, he has consulted on and testified regarding the existence of dual and unequal systems of higher education in

litigation matters. His analyses have included examining the existence of program duplication and unique and high-demand programs at institutions of higher education. (*See* No. 480-1, Ex. 1.) Dr. Conrad has already been qualified as an expert in this case in 2012. (1/10/12 AM Trial Tr. at 10-11 (Conrad).) He testified extensively regarding programs, program approvals, program duplication, and the potential for unique programs to increase other-race enrollment. This Court relied upon and cited to both Conrad's expert reports and his trial testimony on unnecessary program duplication in Maryland in its 2013 Opinion. (2013 Op.)

Dr. Conrad, who provided expert testimony on higher education, with a particular focus on academic programming, mission, and desegregation, holds a Ph.D. in Higher Education from the University of Michigan and has significant experience in analyzing program duplication, program curricula and program inequality. (*See* 1/10/12 AM Trial Tr. at 11 (Conrad).) Prior to this lawsuit, Dr. Conrad served as a testifying expert witness on these issues in several key higher education desegregation cases, including *Fordice* and *Knight*. In addition, Dr. Conrad has repeatedly served a consultant to OCR regarding desegregation of higher education in states with former *de jure* systems, including Maryland, Virginia, Oklahoma, and Texas. As part of his consulting work in Maryland, he specifically advised OCR on the terms of Commitments 8 (unnecessary program duplication) and 9 (enhancement of the HBIs) in the Partnership Agreement. (1/10/12 AM Trial Tr. 36-39 (Conrad).) Indeed, even Maryland has retained Dr. Conrad for his expertise on these issues. (1/08/12 AM Trial Tr. at 9-10 (Conrad).) Dr. Conrad has published extensively on academic programming and unitary and dual systems of higher education in former *de jure* states, including his own quantitative studies. (1/18/12 AM Trial Tr. at 7-8 (Conrad).)

As Dr. Conrad testified at the remedies trial, his scholarship has focused on "creating educational opportunity for all students" and that, in that regard, he "did a three-year study of minority-serving colleges" and multiple "case studies." (1/24/17 Trial Tr. at 15 (Conrad).) Dr. Conrad has utilized both quantitative and qualitative methods, and his work has appeared in peer-reviewed journals. (*Id*. at 15-16.) He has also "written about desegregation in higher education" in conjunction with his work as a consultant and expert. (*Id*. at 16.) His testimony in the Alabama, Mississippi, and Louisiana "addressed remedial recommendations related to the desegregation of higher education" and specifically to "the development of remedies for unnecessary program duplication in particular." (*Id*. at 17.)

Dr. Conrad testified extensively at the first trial regarding program duplication, and the Court credited his opinions in its liability opinion. (*See, e.g.*, 2013 Op. at 45-50.) As with Dr. Allen, the State had no objections to Dr. Conrad's qualifications to testify at the first trial. (1/20/12 AM Trial Tr. at 11 (expressing no objection to Professor Conrad being offered as an expert in the fields of "academic programming and mission and desegregation").)

Conrad and Allen's opinions are reliable based on their qualifications, specialized knowledge, and experience. In *U.S. v. Wilson*, the Fourth Circuit unequivocally stated that "experience alone--or experience in conjunction with other knowledge, skill, training or education" can be a basis for expert testimony. *United States v. Wilson*, 484 F.3d 267, 274 (4th Cir. 2007) (quotations omitted). It is thus acceptable for experts to opine based primarily on their own experience. *See United States v. Bynum*, 604 F.3d 161, 167 (4th Cir. 2010) (holding that "forensic photographic investigators with extensive child pornography experience are qualified to give expert testimony as to whether images depict real children"); *A Helping Hand, L.L.C. v. Baltimore County*, No. Civ. A. CCB-02-2568, 2005 WL 2453062, at *10 n.11 (D. Md.

Sept. 30, 2005) (Blake, J.) (rejecting defendants' objection that plaintiff's expert did not discuss "the principles or methodology that form the basis of their opinions" in part because "it is perfectly legitimate for the plaintiff's experts to base their opinions on their professional clinical experience, as they have done.")

C. Conrad and Allen's Methodology is Valid and Supported by the the Record.

Conrad and Allen's approach is typical of that used by experts in fields that draw on experience and specialized knowledge whose testimony has been admitted under Rule 702. Such experts "draw a conclusion from a set of observations based on extensive and specialized experience." *Kumho Tire Co. Ltd. v. Carmichael*, 526 U.S. 137, 156 (1999). Filtering through evidence in the manner Conrad and Allen have done and drawing conclusions based on knowledge and experience is perfectly acceptable under Rule 702.

As Dr. Allen explained at trial, his and Dr. Conrad's analysis was a "mixed-methods approach." (1/19/17 AM Trial Tr. at 5 (Allen).) "The development of remedy or a remedy proposal absolutely requires that one pay attention to context and, further, that one not in any kind of certain and rigid sense predetermine what the outcome will be. Rather, we look through the data, we assess those data, and look at the information, data at hand, and the task, all within context." (*Id*.) Using their experience and specialized knowledge they looked "historical factors" as well as analyzing "documents and court records." (*Id*. at 6.) They looked at all the information available "in connection to the patterns of enrollment that were existent and that were anticipated or desired." (*Id*.) As Dr. Allen explained, they "drew from multiple sources." (*Id*. at 11.) They "continued in our work with an iterative process" where they would "look at the data, go back and look at the patterns, look at sources, look at historical factors, look at the characteristics of the institutions, and so accepted, embraced the fact that those different dimensions are interactive." (*Id*.) Dr. Allen explained: "Our strategy is guided by and

influenced by sort of a case-studies approach, thinking about the cases of particular academic programs, thinking about the cases of particular HBIs." (*Id*. at 12.)

Similar experiential methodologies have been approved in numerous other cases. *See e.g., Bitler v. A.O. Smith Corp.*, 400 F.3d 1227, 1235 (10th Cir. 2005) (affirming admission as reliable testimony by fire investigator who "observed the physical evidence at the scene of the accident and deduced the likely cause of the explosion"); *The Harvester, Inc., v. Rule Joy Trammell N Rubio, LLC,*No. 3:09cv358, 2010 WL 2653373, at *2 (E.D. Va. July 2, 2010) (admitting expert testimony by experienced architect as to architectural similarities between two sets of drawings where expert said he reached his conclusion "simply by observing the subject documents generally and then in more detail.").

Conrad and Allen's approach involved the assimilation of substantial data from multiple sources and, based on experience, exercising professional judgment as to how it fits together and what conclusion it ultimately supports. Their testimony thus fits squarely within the type of methodologies found reliable by courts for experts testifying based on experience and specialized knowledge, a method that can generally be described as "the application of *extensive experience* to analyze" the question at hand. *Wilson*, 484 F.3d at 274-75 (quoting Fed. R. Evid. 702, 2000 Advisory Committee Notes) (emphasis in original).

Rule 702 merely requires "an experiential witness to explain how [his] experience leads to the conclusion reached, why [his] experience is a sufficient basis for the opinion, and how [his] experience is [related] to the facts." *Wilson*, 484 F.3d at 274 (affirming admission of testimony by expert on coded language used by drug dealers) (quotations omitted). Drs. Conrad and Allen did so in detail, both in their report and their live testimony.

Dr. Lichtman's and Defendants' attempt to import elements of the scientific method of the "hard" sciences is clearly at odds with the methodologies courts have approved for testimony based on experience and specialized knowledge, as described above. As the *Wilson* court stated, "[e]xperiential expert testimony, on the other hand, does not 'rely on anything like a scientific method.'" *Wilson*, 484 F.3d at 275; *see also Bynum*, 604 F.3d at 167 (rejecting the argument that the method in question "has not been tested, or subject to peer review and publication, and does not have a[n] . . . error rate") (quotations omitted). Like other types of expert testimony admitted under Rule 702, the assessment of high-demand programs requires an evaluative process based on substantial knowledge and expertise that is exercised by individuals with appropriate training and experience. Such an assessment produces reliable information and compliance with the scientific method is inapposite in this field.

Dr. Lichtman, in fact, himself testified that a remedial plan should be based on a "sound analysis" but "in social science, of course." (2/14/17 Trial Tr. at 114 (Lichtman).) As he conceded, "[w]e're not doing physics," and "[s]cientific method, you know, is not an exact term of art." (*Id*. at 114-15.) And while he purported to have focused on a quantitative hypothesis, he testified that "[y]ou could certainly develop hypotheses in other ways." (*Id*.) And when asked if he could identify "any instance of a desegregation remedy where a court has required a scientifically sound quantitative analysis as a condition of the remedy," he replied "I don't have an opinion one way or another about that." (*Id*.)

In *Daubert*, the Supreme Court stated that it did "not presume to set out a definitive checklist or test" for admissibility of expert opinion. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 593 (1993). Rather, a trial court "enjoys broad latitude in executing its gate-keeping function; there is no particular procedure it is required to follow." *In re Neurontin Mktg. Sales*

Pracs., and Prods. Liab. Litig., MDL No. 1629, 2009 WL 3756328 at *4 (D. Mass. Aug. 14, 2009). *See also United States v. Mooney*, 315 F.3d 54, 62 (1st Cir. 2002). In fact, six years after *Daubert*, the Supreme Court again emphasized the "flexible" nature of Rule 702, stating that the factors articulated in *Daubert* would *vary* "depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony." *Kumho Tire*, 526 U.S. at 150.

Courts have commented on the particular need to reach beyond the factors listed in *Daubert* involving areas other than the "hard" sciences. *See, e.g.*, *United States v. Simmons*, 470 F.3d 1115, 1122-23 (5th Cir. 2006) (upholding psychologist's testimony even though it did not, because of "inherent limitations" of research in that field of study, satisfy the factors used in *Daubert*); *Longoria v. Texas*, Civ. A. No. 5:02CV112, 2007 WL 4618452, at *4 (E.D. Tex. May 18, 2007) (challenged testimony admitted because the "research, theories, and opinions cannot have the exactness of 'hard' science methodologies").

In such cases, "other indicia of reliability . . . including professional experience, education, training, and observations" guide the inquiry. *Id.* at *4. In *Blanchard v. Eli Lilly & Co.*, 207 F. Supp. 2d 308 (D. Vt. 2002) the court admitted expert testimony even though "it has not been subjected to peer review and publication; the rate of error is unknown and unknowable; and the theory does not have general acceptance." *Id*. at 317. The court explained that the four factors discussed in *Daubert* were not "helpful" and instead indicated that the ultimate task is "not to apply a rigid checklist" but to determine if the testimony "is based upon sufficient facts or data and is the product of reliable principles" which "have been applied reliably to the facts of the case." *Id*.

In sum, the trial court is permitted "broad latitude" beyond the four factors announced in *Daubert*. *Amorgianos v. Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 265 (2nd Cir. 2002) ("in

analyzing the admissibility of expert evidence, the district court has broad discretion in determining what method is appropriate for evaluating reliability under the circumstances of each case"). That discretion is particularly broad when the area of expertise is not a "hard science." *See EEOC v. Bloomberg, L.P.*, No. 07 Civ. 8383(LAP), 2010 WL 3466370 at *14 (S.D.N.Y. Aug. 31, 2010) ("Because there are areas of expertise, such as the social sciences in which the research theories, and opinions cannot have the exactness of hard science methodologies, trial judges are given broad discretion to determine whether *Daubert*'s specific factors are, or are not, reasonable measures of reliability in a particular case").

The Fourth Circuit stressed the appropriateness of this flexible approach in *United States v. Hammoud,* approving an expert's methodology which the expert explained as follows:

> Well, we're talking about a social science here. This is not scientific research. Basic academic intellectual research combined with the techniques I was taught in ... various courses I took as an analyst for the government both taught that the best way to go about making sense of something in the social sciences is to collect as much information as possible and to balance each new incoming piece of information against the body of information that you've built to that point.... So it's a constant vetting process. And the more rigorous you are, the better your information will be.

381 F.3d at 337 (alterations in original). This description is consistent with Conrad and Allen's description of how they gradually developed ideas as they sifted through large amounts of data.

Much of Defendants' attack is on the use of "qualitative" instead of "quantitative" data. As an initial matter, it is clear that Conrad and Allen used both. In any event, the use of qualitative analysis in no way renders their work unreliable. In other states where there were issues of higher education and desegregation, both qualitative and quantitative data was used. "It was sizably a qualitative approach, although, of course, we did incorporate and consider quantitative data. But the approach was qualitative." (1/19/17 AM Trial Tr. at 6 (Allen).) "In

the instance of remedial plans, and in this one in particular, quantitative testing at this point simply is not appropriate. And it's not appropriate for a number of reasons." (*Id*.)

In other cases, courts reviewing higher education/affirmative action cases "have relied on data that are qualitative in nature." (1/19/17 AM Trial Tr. at 29 (Allen).) In those prior cases, "the courts did not insist on and didn't believe it was reasonable to expect a causal test before the fact to set parameters for the remedial plans that they advanced or that they confirmed." (*Id.* at 30.) As Dr. Allen testified, qualitative analysis is a valid approach in desegregation cases. A qualitative analysis involves studying an issue by "starting with cases and their outcomes and moving backward toward the causes." (DRE 19 at 4.) A qualitative analysis often uses inductive reasoning, where the expert develops a theory by letting the data speak for itself. (1/19/17 AM Trial Tr. at 4 (Allen).) An expert will then refine the theory to account for what is known as discrepant data. (*Id.*) Qualitative analysis encompasses a variety of data collection methods, including case studies, interviews, and focus groups. Dr. Allen also described the methodology as a mixed-methods approach (using both qualitative and quantitative methods). (*Id*.) Dr. Allen distinguished Plaintiffs' analysis from a pure quantitative analysis, which he described as involving testing "if-then" statements using statistics. (*Id*.) A quantitative analysis is not appropriate here because the plan to be "tested" is not yet in place. The goal of the analysis in this case, according to Dr. Allen, made qualitative analysis the most appropriate here. (1/19/17 AM Trial Tr. at 5-6 (Allen).)

D. Defendants' Criticisms Are Rebutted by the Evidence.

Defendants' attacks are groundless for several reasons. As an initial matter, they simply ignore the vast amount of evidence supporting Conrad and Allen's opinions and instead focus on the supposed deficiency of just two components of them -- the 1994 DOJ Study and the 2016 Enrollment Study. Leaving aside -- for the moment -- those two studies, there is *ample* other

evidence in the record to support Conrad and Allen's opinions regarding the potential for unique and/or high-demand programs to attract other-race students to the HBIs. Defendants' critique of the premise of Plaintiffs' remedial proposal is misguided because it ignores the overwhelming available evidence that supports that Plaintiffs' experts relied upon for their opinion that the creation of unique high-demand programs at the HBIs has desegregative potential. Dr. Allen summarized these and other pieces of evidence at trial in detail. (1/18/17 PM Trial Tr. at 5-10.)

- OCR's 1977 Guidance provided that (desegregation plans shall "commit the state to give priority consideration to placing any new under-graduate, graduate, or professional degree programs, courses of study, etc., which may be proposed, at traditionally black institutions, consistent with their missions" (DRE 162.)

- Maryland's Cox Task Force specifically recommended that each of the institutions "develop its own specialty areas or programs within the total state system of higher education that will broaden the appeal of the institution to a more diverse student body." (PTX 22 at 20-21.)

- The State has already admitted that unique, high-demand programs attract white students. (*See* PTX 4 at 36-37) ("Avoiding Unnecessary Program Duplication and Expansion of Mission and Program Uniqueness and Institutional Identity at the HBCUs").)

- The 2006 Committee I Report (assured that Maryland would take appropriate steps to ensure that unique, high demand programs are placed at the HBIs to attract other-race students). (PTX 8.)

- At trial, MHEC's signatory to the Agreement, MHEC Chairman Mr. Oliver admitted that the State understood its obligation to establish unique, high-demand programs to desegregate the HBIS. (1/11/12 AM Trial Tr. at 38 (Oliver).)

- The State's previously retained and deposed experts have admitted that unique, high-demand programs attract white students. (*See*, *e.g.*, 2/6/12 PM Trial Tr. at 58 (Hossler) (agreeing that "programs can attract other race students" and that "unique programs can attract other race students").)

- The State's own witness, Dr. Howard, agreed that it was important to have "unduplicated programs to attract white students." (1/23/12 PM Trial Tr. at 4 (Howard).)

- The State's client, Morgan State University President Wilson, an expert on what attracts students to HBIs, testified that based on his academic research and his

> experience at Morgan unique, unduplicated programs attract white students. (1/9/17 PM Trial Tr. at 34-36 (Wilson).)

In addition, Drs. Conrad and Allen provided detailed explanations for their opinions regarding the potential for unique and high demand programs to attract other-race students.

> Programmatic niches recognize the reality that it is a competitive business to attract students. And students are shopping in that market. And so the most attractive product attracts those students and draws those students to your campus.
>
> So in order to draw students, the programming on the campuses must -- at those HBIs must be made more distinctive, more attractive, that is. It must be -- or it is helpful for the case where you place on those campuses unique programs, programs that are high-demand.

(*Id*. at 12.) As a result, "a programmatic niche that is founded on high-demand, unique programs" means that "the campus becomes more distinctive; it becomes identified in terms of its academic programs rather than race; and it is, therefore, better positioned to attract white and other-race students beyond the majority black students." (*Id*. at 13.) The reason that uniqueness and demand both matter was thoroughly explained to the Court at trial:

> Those two traits and characteristics reinforce one another, and they both matter in terms of creating the kind of academic programming that will attract students.
>
> I mean, if you think about unique programs, it's essentially creating a seller's market, for lack of a better way of putting it. You're creating programs that, if someone wants to major in, say landscape architecture and you're the only program in town, then those students who desire that major are drawn to that program.
>
> By the same token, when you start talking about high-demand programs, you're talking about programs that are hotly sought after and that students are drawn to. So it's a combination of appealing or having an effect in terms of increasing percentages and increasing numbers with respect to enrollment.

(*Id*. at 14.)

In addition, the concept of the clustering of niches was presented at trial. As Dr. Allen explained, "[c]lustering through niches is important for . . . this amplification effect." (*Id*. at 15.) Based on experience in other states, Drs. Conrad and Allen concluded that "one or two really high-quality programs that will draw white students are just not enough to tip that balance." (*Id*.) Instead, they explained, you need "a core of programs, a niche" that is made up of "several distinctive, unique, high-demand programs that will draw students, because, otherwise, you have this smattering" which is not sufficient to result in "significant gains of the sort that can then be observed and maintained." (*Id*. at 15-16.)

The above evidence (and more) provides adequate support for these experts' opinioins that unique and high-demand programs have the potential to attract other race students, and for that reason alone Defendants' motion should be denied. Nevertheless, the Court will now confront the two pieces of evidence upon which Defendants' *Daubert* motion was specifically based. Defendants basically set up "straw men" by implying that the 1994 DOJ Study and 2016 Enrollment Study were the only pieces of evidence supporting Plaintiffs' theory, and then attempted to shoot those two down, while ignoring most if not all of the other relevant evidence. In any event, the evidence supports the reliability of both studies under Rule 702 and they are thus proper for the Court to consider.

1. 1994 DOJ Study

Conrad and Allen's analysis included as just *one* source the 1994 DOJ Study. In any event, reliance on this study is justified. In conducting the study, Conrad employed reliable qualitative methods, and the DOJ study itself was analyzed in combination with other sources. As Dr. Conrad explained, the 1994 Study was commissioned by the Department of Justice and its purpose was to assist in "developing remedies about what attracts white students to HBIs" and to identify "statewide and institutional policies and practices that are [] going to encourage

whites to attend HBIs." (1/24/17 Trial Tr. at 32 (Conrad).) The report was "multimethod" in that he "used both qualitative and quantitative methods." (*Id*.)

Conrad used "five different HBIs, different levels of enrollment, spread across the South" so that "it was a pretty diverse sample." (*Id*.) Conrad interviewed "a total of 80 individuals across the five HSIs" including students, faculty, and administrators. (*Id.* at 33-34.) The results of the study were that Conrad "identified 14 factors that stood out" across the five institutions. (*Id*. at 34.) And of all the factors, "[t]he most important of those was, again and again, about academic program offerings." (*Id*. at 34-35.) Although Conrad has studied the factors "for more than two decades now," he states that "the two that keep coming up most often are their unique programs and their high-demand programs." (*Id.* at 35.)

In attacking the 1994 DOJ Study, Defendants relied on the testimony of a new expert, Dr. Michael Bastedo, who specifically disavowed *any* expertise in the subject matter of this case and offered no views on the merits of Plaintiffs' remedial plan. (DRE 102 at 3 ("I do not claim specific expertise on Historically Black Colleges and Universities (HBCUs) or Minority Serving Institutions (MSIs).) I also do not offer an opinion on the merits of the remedy proposal, and my review is limited to the methodology and implications of the research and reports presented to me.").)

With these glaring caveats, Dr. Bastedo then offered a critique of the 1994 DOJ Study, although acknowledging that Dr. Conrad interviewed an "impressive number of informants" and that the "work has value." (*Id* at 8.) Professor Bastedo also acknowledged that the five HBIs Dr. Conrad chose were a representative distribution in terms of white student population percentage." (2/15/17 Trial Tr. at 116-19) (Bastedo).) His primary criticism of the study is that "[u]ltimately, qualitative research is not well suited to the identification of 'factors' that cause a

particular outcome," which suggests that no matter what work Conrad and Allen or any other qualitative researcher did, it would not be sufficient.

As Dr. Allen testified at trial, qualitative analysis is *more* appropriate here where the task is to predict *future* potential. (2/21/17 Trial Tr. at 32 (Allen) ("quantitative tests assume that a plan is in place"); s*ee also* DRE 15 at 19 ("Qualitative analysis is better suited than quantitative research for process tracing, for exploring the tipping points that play a critical role in shaping long-term processes of change").) As Dr. Allen explained, "qualitative analyses are better suited for complex analyses where one is talking about process; and that is, indeed, more akin to the challenge in a higher education desegregation case and specifically developing a remedial plan." (2/21/17 Trial Tr. at 35-36 (Allen).)

Another reason that qualitative analysis is more appropriate is due to the limited data set involved (referred to as small "n" or heteroskedasticity). (2/22/17 trial Tr. at 36 (Allen).) The small data set (relating to white students enrolled in HBI programs) is not mitigated by the number of programs examined. (*Id*.) As Dr. Allen explained, "[t]hat's not an accurate conclusion specific to the question at hand," which is one focused on the processes "that explain or that are associated with the location or concentration of white students in certain programs." (*Id*.) In looking at the distribution of white students, they are not "normally distributed" but "are, in fact, instead concentrated in skewed and non-normal ways." (*Id*.)

The 1994 DOJ study's validity is confirmed by a quantitative study by Brandon Daniels at the University of Wisconsin. (*See* PRX 311.)[15] Dr. Daniels essentially did a quantitative analysis of Dr. Conrad's study from the 1990's. Using twenty years of data from 40 HBIs, Dr.

[15] Plaintiffs note that PRX 311, along with various other exhibits relied on by the parties for purposes of the *Daubert* motion, have not been admitted into evidence on the merits but are being used for *Daubert* purposes only.

Daniels evaluated the *fourteen* variables that Dr. Conrad found in his study had the most influence on white students attending HBIs. Using the same type of OLS regression analysis that Dr. Lichtman uses, Dr. Daniels found that program uniqueness was the *single strongest variable* that correlated with white enrollment at the HBIs. Dr. Daniels found that "unique program offerings significantly contributed to the increase in White students at public HBCUs." (*Id*. at 49.) Daniels explained: "This means that the more unique programs the HBCUs offered, the larger the increase in White student enrollment at these institutions from 1984 to 2004." (*Id*.) He concluded that "when examining each of the independent variables in groups, it is shown that the unique program offerings are significant in the programmatic set of independent variables" and that unique programs have "a positive association with the increase in White student enrollment at public HBCUs." (*Id*. at 60.) Daniels stated that "this study provides evidence that unique program offerings are associated with the number of White students enrolled at HBCUs." (*Id.* at 72.) He offered that "[p]olicymakers and states should consider taking steps to ensure HBCUs have a substantial amount of programs that are unique and that are unduplicated." (*Id.*) Plaintiffs submit that the Daniels Study alone provides overwhelming support for the premise that unique high-demand programs will attract other-race students.

The validity of the 1994 DOJ study is also buttressed by the use of techniques specifically approved by Defendants' own expert, Dr. Bastedo. Two of the methods Dr. Bastedo mentioned in his own report that *increase* the validity of a study are the use of triangulation and rival explanations. (DRE 102 at 4-6.) Triangulation involves relying on different methods of collecting data (*e.g.* interviews and documents) or having researchers reach the same conclusion. (*Id*. at 6; 2/15/17 Trial Tr. at 32-33 (Bastedo).) Rival explanations involve looking for different causes of the same effect. (*Id*. at 4.) Dr. Bastedo admitted at trial that Dr. Conrad did look at

rival explanations for white student choice of the HBIs. (2/15/17 Trial Tr. at 124-27 (Bastedo).) He also admitted that Dr. Conrad engaged in triangulation in multiple ways -- he talked to informants with multiple perspectives, he spoke to people from five different schools, and he engaged multiple authors. (*Id*. at 127-30 (recognizing use of informant, data, and investigator triangulation).)

2. 2016 Enrollment Study

The other source relied upon by Conrad and Allen that Defendants specifically attack was the 2016 Enrollment Study, which was a descriptive analysis of Maryland 2014 enrollment data. This statistical data tracked trends across programs, schools, and time. That analysis is captured in Exhibits 6-8 to the Conrad/Allen Report. (PRX 312 at 35-41; 218-20.) The initial focus of this study was the identification of the programs that attracted 10 or more white students; programs with a disproportionality of white enrollment; and programs attracting 15 or more white students and 15% white enrollment. (*Id*. at 218-20, Exhibits 6-8.) Conrad and Allen thus began their analysis by analyzing enrollment data regarding where white students were enrolled. Using the Maryland Higher Education Commission (MHEC) Data Book, they found substantial evidence that white student enrollment at HBIs is associated with a meaningful number of unique, high-demand, and unique/high-demand academic programs. (PRX 312 at 35-41.)

The details of Conrad and Allen's 2016 analysis is discussed above in detail in Section IV.B.1 and are incorporated by reference. In summary, Conrad and Allen created an inventory of all academic offerings at institutions in the Maryland System of Higher Education. They then identified academic programs at Maryland's HBIs that were successful in attracting higher white student enrollments. These academic programs contributed disproportionately to increasing the presence of white students on HBI campuses across the system. Exhibit 6 to Conrad and Allen's

report lists 34 programs at Maryland HBIs where 10 or more white students were enrolled in the fall 2014 -- 31 non-core and 3 core academic programs. (*Id*. at 218.)

Conrad and Allen found numerous examples of meaningful numbers of white students represented in clusters of related academic programs, such as at UMES in the Physical Therapy (PhD) program (48%), the Pharmacy (PharmD) program (19%), and the Physician's Assistant (MS) program (18%). (*Id*.) (Examples of how related clusters of unique and/or high-demand programs can attract white students were also found at Morgan State, such as the Master's programs in Architecture (50%) and Landscape Architecture (52%). Several academic programs at Bowie State are also examples of how related high-demand academic programs can attract white students and provide a robust foundation for developing programmatic niches such as Nursing MS (11%), Early Childhood Ed (10%), and School Counselling (18%). (*Id*.)

Conrad and Allen then analyzed the patterns of these 31 non-core academic programs which attracted disproportionate white student enrollments, in order to devise methods to significantly increase white student enrollment at HBIs. Their analyses revealed that academic programs at Maryland HBIs that attracted higher white student enrollment (defined as 10 or more white students) were mostly high-demand, unique or unique/high-demand academic programs. Interestingly, UMES, which had the highest number of unique, high-demand, and unique/high-demand academic programs of all Maryland HBIs also had the largest number of white students. (*Id*. at 218 Exhibit 6.)

In all, the data examined by Conrad and Allen show that program uniqueness and demand are associated with racial diversity. (PRX 312 at 36-37.) In particular, it shows that white students are drawn to unique and high-demand programs. (1/19/17 AM Trial Tr. at 23 (Allen).) In short, the 2016 Study confirms that unique and high-demand programs have the

potential to attract other race students. (*Id*. at 37-38.) While the Defendants are free to debate the correctness or weight of these conclusions, the analysis is sufficiently reliable to be considered pursuant to Rule 702.

3. Balance of the Conrad/Allen Remedial Plan Analysis

The court notes that Defendants' motion is based expressly on the 1994 DOJ Study and the 2016 Enrollment Study and their supposed lack of foundation for the conclusion that unique and high demand programs have the potential to attract other-race students. Defendants did not (in their *Daubert* motion) suggest that Conrad and Allen's opinions regarding program *choices* were to be excluded. Nonetheless, to the extent that Defendants' *Daubert* and "practicability and soundness" arguments overlap, the Court will address such arguments here.

Having opined that unique and high-demand programs had the potential to attract other-race students, Conrad and Allen next set out to determine *which* programs should be created at which HBIs. To do this, based on completion data reviewed from MHEC's *Degree Trend Data Workbook* 2014, Conrad and Allen identified high-demand programs (those with average completions of at least 25 students at the bachelor's level, for example) and extremely high-demand programs. (PRX 312 at 14, 17.)

Based on institutional mission, current institutional capacity, and an analysis of current and projected labor demand, Conrad and Dr. Allen then identified a minimum of two niches for each HBI. (*Id*. at 161-75.) For example, Coppin's current capacity in nursing influenced the choice of nursing/allied health as one of the proposed programmatic niches for that institution. (*Id*. at 167.) Similarly, the designation of UMES as a historical land grant institution was a major factor in the selection of engineering/aviation sciences and agricultural/environmental science as proposed niches for that institution. (*Id*. at 170.) The impressive success of UMES's pharmacy and health programs in attracting students of all races was an important factor in the

selection of that niche for UMES. Morgan's reputation and existing capacity in the areas of business and engineering, as well as its mission as an urban research institution, was considered in the identification of the proposed niches of business and management, engineering and urban environment/health and sustainability studies. (*Id*. at 161-66.) Bowie's historical legacy as a teaching school and its emerging reputation in the growing field of computer sciences led to the identification of the proposed niches for that HBI. (*Id*. at 174.)

Conrad and Allen are more than justified in opining that one of the most effective ways to remediate unnecessary program duplication involves the placement of unique, high-demand programs at the HBIs to allow them to attract students of all races. Indeed, this has been a finding in previous higher education desegregation cases. There is a "strong 'symbiotic relationship'" between programs and schools, *Knight v. Alabama*, 900 F. Supp. 272, 315 (N.D. Alabama 1995), and "well-planned programs that respond to the particular needs and interests of local populations can help to desegregate historically black institutions." *Ayers v. Fordice*, 111 F.3d 1183, 1213-14 (5th Cir. 1997). Programs "not duplicated at proximate institutions, targeted to local demands . . . have had success in attracting white students to historically black institutions." *Id*. at 1214. Unique programs are the key to fashioning an appropriate remedy for duplication, and "meaningful uniqueness" requires a reasonable number of high-demand, non-core programs at a university that are not duplicated elsewhere in the system. *Ayers v. Fordice*, 879 F. Supp. 1419, 1442 (N.D. Miss. 1995) (quotations omitted). At the same time, those unique programs must be sufficiently high-demand to generate the "critical mass" of other-race students necessary to overcome the presumption that HBIs are academically inferior. *Knight*, 900 F. Supp. at 319-20. As in those cases, there is reliable evidence here that unique programs empower institutions to attract a diverse student body.

E. Defendants' Criticisms at Most go to Weight not Admissibility.

The Supreme Court has stated that "Rule 702 . . . requires that the evidence or testimony 'assist the trier of fact to understand the evidence or to determine a fact in issue.' This condition goes primarily to relevance." *Daubert*, 509 U.S. at 591 (quoting Fed. R. Evid. 702). Conrad and Allen's testimony clearly meets this requirement. Disputes over the relevance or strength of such expert testimony is within this Court's role as fact finder to resolve. If an expert's testimony is within "the range where experts might reasonably differ," the factfinder should be the one to "decide among the conflicting views of different experts." *Kumho Tire*, 526 U.S. at 153. It is well accepted that credible experts may reach, and testify to, different views or conclusions on the same issue, particularly in experiential and technical areas. *See, e.g.*, *Waterman v. Batton*, 294 F. Supp. 2d 709, 721 (D. Md. 2003) (Blake, J.) (considering testimony of "well-qualified expert witnesses on police use of force [proposed by plaintiffs and defendants], who have reached contrary conclusions on whether the officers' actions were consistent with standard police practices and were objectively reasonable"), *reversed on other grounds*, 393 F.3d 471 (4th Cir. 2005).

In conclusion, despite the vast evidence supporting the conclusion that unique, high-demand programs can attract other-race students, Defendants in their *Daubert* motion attack that very premise. They do *not* attack the true focus of Conrad and Allen's remedial proposal -- *i.e.*, the programs that *should be created* at the HBIs. Rather, they attack the already-established premise that programs have the potential to attract other-race students to the HBIs.

Finally, the Court agrees with Dr. Allen that for the most part, Defendants' attack on Conrad and Allen's methodology is essentially circular. As Dr. Allen explained:

> [I]t's been my experience in those states and cases where I have been involved in the development of remedial plans that we have routinely and regularly dealt with issues and -- that assessed the

> promise and potential of the proposed plans and not merely -- and not being held to this notion that, well, you can't implement a plan until it is in place and testable. That just creates a contradiction in a place or sort of a set of circumstances where you have -- the Court would have nowhere to go. The plan's not in place, and it can't be tested. And then a plan can't be put into place because it can't be tested.

(2/21/17 Trial Tr. at 34 (Allen).) The Court likewise concludes that it is impossible to empirically test the potential of *future* programs impact in advance. The *potential* for such programs to have a positive impact has been supported by sufficiently reliable evidence for the Court to consider the evidence. Accordingly, Defendants motion to exclude will be denied.

CONCLUSION

For the reasons set forth in these findings of fact and conclusions of law, the Court shall enter judgment and a remedial order as outlined herein. The Court shall also deny Defendants' *Daubert* motion in its entirety.

Dated: April 24, 2017

Respectfully Submitted,

/s/

Michael D. Jones, Esq. (Bar No. 08634)
Karen N. Walker (Bar No. 14181)
Michael Lee Fitzgerald (*pro hac vice*)
KIRKLAND & ELLIS LLP
655 Fifteenth Street, N.W.
Washington, D.C. 20005
Telephone: (202) 879-5000
Email: mjones@kirkland.com

Jon Greenbaum (*pro hac vice*)
Brenda Shum (*pro hac vice*)
Genevieve Bonadies (*pro hac vice*)
Lawyers' Committee for Civil Rights Under Law
1401 New York Avenue, N.W., Suite 400
Washington, DC 20005
Telephone: (202) 662-8600
Email: jgreenbaum@lawyerscommittee.org

John C. Brittain (*pro hac vice*)
2513 Gadsby Place
Alexandria, VA 22311
Telephone: (832) 687-3007
Email: jbrittatty@comcast.net

ATTORNEYS FOR PLAINTIFFS

CERTIFICATE OF SERVICE

I hereby certify that on this 24th day of April, 2017, I caused a true and complete copy of the foregoing submission to be served on counsel of record by email and ECF electronic service.

/s/ Michael D. Jones
Michael D. Jones