Woodcock Institute Grant

Final Report

Submitted to Dr. Daniel Miller by Drs. Laura Spenceley, Whitney Wood, and Benjamin Lovett

Title: Identifying Embedded Validity Indicators in the Woodcock Johnson Tests of Cognitive Abilities

Primary Investigators: Laura Spenceley, Ph.D (SUNY Oswego); Whitney Wood, Ph.D. (Le Moyne College), Benjamin Lovett, Ph.D. (SUNY Cortland)

Summary of Research Activities:

On behalf of our research team, I am pleased to report that we have completed data collection on this project. Drs. Spenceley and Wood successfully recruited a total sample of 160 participants from the inception of the grant. Though our recruitment included posted fliers, class visits, and direct emails to possible participants, we experienced some difficulty to recruiting our goal of 200 participants, we are pleased with the distribution of our participants among the experimental conditions and have closed the IRB for each data collection site.

Thus far, we have taken several opportunities to present our partial findings in poster sessions at both the NY Association of School Psychologists' Annual Conference on October 2017 and 2018 as well as the National Association of School Psychologists' Annual Conference in February 2018 and 2019 (see Appendices A-D). We have submitted several presentations to these respective conferences for 2019 and 2020, respectively, though selections have not yet been announced. Further, we will prepare a manuscript for submission to a peer-reviewed journal and are confident these findings will be of interest to our scientific community.

Please see the attached spreadsheet for a summary of the funds utilized, including the funds that will be returned to the Woodcock Institute. We have included the remaining funds with this report, and confirm the accuracy of the attached summary (Appendix E). For transparency, we have also included site-specific summaries of participant pay in Appendices F and G.

On behalf of our research team, a sincere thank you for the opportunity to do this work with the support of the Woodcock Institute.

Laura Spenceley, Ph.D.

Appendix A

New York Association of School Psychologists 2017 Annual Conference Presentation – Pilot Data

Assessment of Effort: A Pilot Study of the WJ - IV COG Clusters as Embedded Validity Indicators

Laura Spenceley, Ph.D.[1], Whitney L.M. Wood, Ph.D.[2], Emily Marshall, B.A.[1], & Meagan Scott, B.S.[3]
[1]State University of New York at Oswego, [2]Le Moyne College, [3]Syracuse University

Introduction

Recent research has shown that a number of students will do poorly on cognitive and academic tests for various reasons (for review, see Kirkwood, 2015) unrelated to their academic or cognitive abilities. School psychologists need efficient and accurate methods to assess students' effort to ensure valid decisions can be made from testing results. The use of embedded validity indicators (EVIs) eliminates the need to administer an additional measure of effort, as EVIs are scores derived from cognitive tests already being given as part of a typical battery, but validated for the specific purpose of measuring effort. The tests in the Woodcock Johnson IV Test of Cognitive Abilities (WJ-IV COG; Schrank, Mather & McGrew, 2014) have potential for EVI validation, but no such work has yet been attempted.

The purpose of this pilot study was to determine if the WJ-IV COG tests would perform as well as an established measure of effort to discriminate between participants who were told to try their best throughout testing (Typical Group) and participants who were directed to modify their performance by simulating how they believe a student with ADHD would perform on such measures (Feigning Group). Secondly, the pilot served to confirm the effectiveness of the Participant Scripts as a research manipulation, as the current study served as a pilot study for a larger grant-funded project.

We hypothesized the Typical group would pass effort testing more frequently than the Feigning group. Further, we expected the Feigning group would show significantly weaker performance across the Short-Term Working Memory, Cognitive Processing Speed, Cognitive Efficiency, and Gf-Gc clusters of the WJ-IV COG, as well as the corresponding tests within these clusters. We expected there would be a significant correlation between MSVT performance and WJ-IV COG performance.

Method

Twenty-seven healthy participants without ADHD were recruited from one private and one public university in the Northeast. Participants in the study were randomly assigned to one of two groups. A portion of the sample (n–13) formed a Typical group, who were told to complete the task using their best effort. The other participants comprised the Feigning group (n=14) and were prompted to feign ADHD symptoms across tasks of the WJ-IV COG and the MSTV.

Results

To examine our first hypothesis, we used a chi-square test to examine differences between the Feigning Group and the Typical Group. Consistent with expectations, the Typical group passed the MSVT more frequently than the Feigning group (see Figure 1).

To examine our second hypothesis, we conducted independent samples t-tests, which confirmed the Feigning group demonstrated significantly lower performance on all targeted WJ tests and clusters, with few exceptions (see Table 1).

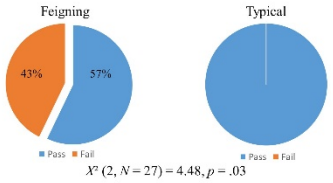
Finally, all WJ-IV cluster scores, with the exception of the Gf-Gc composite, correlated significantly with the MSVT (see Table 2). This suggests that the Cognitive Processing Speed, Working Memory, and Cognitive Efficiency clusters on the WJ-IV identify feigned performance to a level similar to that of an established measure of effort.

Table 1. Group Means and Comparisons Across the WJ-IV COG

	Typical (n = 13)		Feigning (n = 14)			
	M	SD	M	SD	t	d
Age (years)	19.11	0.95	19.75	1.27	-1.45	0.57
Oral Vocabulary	98.23	16.86	95.64	8.64	0.51	0.19
Number Series	112.31	9.48	95.36	11.59	4.14**	1.6
Verbal Attention	101.85	12.81	82.79	12.79	3.87**	1.49
Letter Pattern Matching	107	9.69	78.14	18.98	4.92**	1.92
General Information	92.69	19.23	87.5	8.32	0.92	0.35
Concept Formation	107.23	12.61	96.86	11.04	2.28*	0.88
Numbers Reversed	107.15	13.37	85.86	20.08	3.22*	1.25
Pair Cancellation	106.23	9.26	95.07	10.85	2.86*	1.11
Processing Speed Cluster	107	9.33	84.5	15.81	4.46**	1.73
Working Memory Cluster	105.77	14.61	82.36	16.85	3.84**	1.48
Cognitive Efficiency Cluster	108.23	10.17	77.93	20.33	4.84**	1.89
Gf GC	104.54	14.15	93.07	8.29	2.59*	0.99

* $p < .05$ ** $p < .001$

Figure 2. Pass/Fail Rates on the MSVT By Group



X^2 (2, N = 27) = 4.48, p = .03

Table 2. Correlation between MSVT and WJ-IV COG Cluster Scores

	MSVT	Cognitive Processing Speed	Working Memory	Cognitive Efficiency	Gf-Gc Composite
MSVT	--				
Cognitive Processing Speed	.63**	--			
Working Memory	.70**	.67**	--		
Cognitive Efficiency	.73**	.89**	.88**	--	
Gf-Gc Composite	0.26	0.33	.50**	.42*	--

* $p < .05$ ** $p < .001$

Discussion

While the current results are limited by the small sample size, they suggest the manipulation used was sufficient to influence performance across the MSVT and selected WJ-IV COG clusters. Consistent with our hypothesis, the Feigning group failed effort testing more frequently than the Typical group, and it showed significantly weaker performance across each of the clusters and all but two of the tests of the WJ-IV COG. Further, we found a significant correlation between effort test failure and the WJ-IV COG clusters of interest, with the exception of the Gf-Gc Composite, lending credibility to the use of these clusters as possible embedded indicators of effort.

References

See handout for a full listing of references

Appendix B

National Association of School Psychologists 2018 Annual Conference Poster

Assessment of Effort: WJ IV COG Clusters as Embedded Validity Indicators

Laura Spenceley, Ph.D.[1], Whitney L.M. Wood, Ph.D.[2], Meagan Scott, B. S. [3] & Emily Marshall, B.A.[1]
[1]State University of New York at Oswego, [2]Le Moyne College, [3]Syracuse University

Introduction

Recent research has shown that a number of students will do poorly on cognitive and academic tests for various reasons (for review, see Kirkwood, 2015) unrelated to their academic or cognitive abilities. School psychologists need efficient and accurate methods to assess students' effort to ensure valid decisions can be made from testing results. The use of embedded validity indicators (EVIs) eliminates the need to administer an additional measure of effort, as EVIs are scores derived from cognitive tests already being given as part of a typical battery, but validated for the specific purpose of measuring effort. The tests in the Woodcock Johnson IV Test of Cognitive Abilities (WJ-IV COG; Schrank, Mather & McGrew, 2014) have potential for EVI validation, but no such work has yet been attempted.

The purpose of our ongoing study is to determine if the WJ-IV COG tests perform as well as an established measure of effort to discriminate between participants who were told to try their best throughout testing (Typical Group), participants who were directed to modify their performance by simulating how they believe a student with ADHD would perform on such measures (Feigning Group), and participants with diagnoses of ADHD (ADHD Group).

We hypothesized the Typical and ADHD groups would pass effort testing more frequently than the Feigning group. Further, we expected the Feigning group would show significantly weaker performance across the Short-Term Working Memory, Cognitive Processing Speed, Cognitive Efficiency, and Gf-Gc clusters of the WJ-IV COG, as well as the corresponding tests within these clusters. We expected there would be a significant correlation between MSVT performance and WJ-IV COG performance.

Method

ADD participants without ADHD were recruited from one private and one public university in the Northeast. Participants in the study were randomly assigned to one of two groups. A portion of the sample (n=XX) formed a Typical group, who were told to complete the task using their best effort. The other participants comprised the Feigning group (n=XX) and were prompted to feign ADHD symptoms across tasks of the WJ-IV COG and the MSTV. Finally, a sample of participants with diagnoses of ADD/ADHD were recruited, and instructed to perform across tasks using their best effort.

Results

To examine our first hypothesis, we used a chi-square test to examine differences between the Feigning, Typical, and ADHD Groups. **Consistent with expectations, the Typical group passed the MSVT more frequently than the Feigning group (see Figure 1).**

To examine our second hypothesis, we conducted independent samples t-tests, which confirmed the Feigning group demonstrated significantly lower performance on all targeted WJ tests and clusters, with few exceptions (see Table 1).

Finally, all WJ-IV cluster scores, with the exception of the Gf-Gc composite, correlated significantly with the MSVT (see Table 2). This suggests that the Cognitive Processing Speed, Working Memory, and Cognitive Efficiency clusters on the WJ-IV identify feigned performance to a level similar to that of an established measure of effort.

Table 1. Group Means and Comparisons Across the WJ-IV COG

	Typical (n = 13)		Feigning (n = 14)			
	M	SD	M	SD	t	d
Age (years)	19.11	0.95	19.75	1.27	-1.45	0.57
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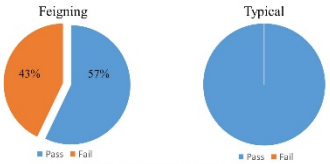
* $p < .05$ ** $p < .001$

Figure 2. Pass/Fail Rates on the MSVT By Group



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* $p < .05$ ** $p < .001$

Discussion

While the current results are limited by the small sample size, they suggest the manipulation used was sufficient to influence performance across the MSVT and selected WJ-IV COG clusters. Consistent with our hypothesis, the Feigning group failed effort testing more frequently than the Typical group, and it showed significantly weaker performance across each of the clusters and all but two of the tests of the WJ-IV COG. Further, we found a significant correlation between effort test failure and the WJ-IV COG clusters of interest, with the exception of the Gf-Gc Composite, lending credibility to the use of these clusters as possible embedded indicators of effort.

References

See handout for a full listing of references

Appendix C

New York Association of School Psychologists 2018 Annual Conference Poster

Identifying Suboptimal Effort with the WJ-IV COG

Laura Spenceley, Ph.D. [1], Nicole Maether, M.S.,[1] Whitney L.M. Wood, Ph.D. [2], & Raychel Kramer, B.A. [1]
[1]State University of New York at Oswego [2]Le Moyne College

Introduction

Students may do poorly on cognitive and academic tests for a variety of reasons (for review, see Kirkwood, 2015). As school psychologists, we need efficient and accurate methods to assess student effort in order to make valid and evidenced-based decisions for our students. Embedded validity indicators (EVIs) eliminate the need to administer an additional measure of effort, as EVIs are scores derived and validated from subtests embedded within standardized tests which are commonly used by school psychologists. Several clusters of the Woodcock Johnson IV Test of Cognitive Abilities (WJ-IV COG; Schrank, Mather & McGrew, 2014) have potential to serve as EVIs, though no research has yet explored their use as EVIs.

The purpose of this study was to determine if select WJ-IV COG tests would discriminate between participants who were asked to do their best (Control Group), participants who were told to modify their performance as if they had ADHD (Feigning Group), and a group of students who have an ADHD diagnosis (ADHD Group), and (b) whether the embedded tasks could discriminate between groups at a similar level to an established independent measure of effort (i.e., the MSVT).

We hypothesized (a) the Control and ADHD groups would pass effort testing more frequently than the Feigning group, (b) the Feigning group would show similar symptom report to the ADHD group, (c) the Feigning group would show significantly weaker performance than the Control or ADHD groups across the Short-Term Working Memory, Cognitive Processing Speed, Cognitive Efficiency, and Gf-Gc clusters of the WJ-IV COG, as well as the corresponding tests within these clusters, and (d) the MSVT would correlate positively with WJ-IV COG clusters.

Method

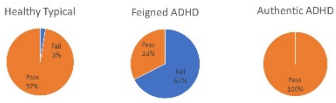
Participants

Ninety-five participants (79 without ADHD and 16 with ADHD) were recruited from one private and one public university in the Northeast. Healthy participants in the study were randomly assigned to one of two groups. A portion of the sample (n = 39) formed a Control group, who were told to complete the tasks using their best effort. The other typical participants comprised the Feigning group (n = 40) and were prompted to feign ADHD symptoms across tasks. Individuals with ADHD (n = 16) formed the ADHD group, who were told to complete the task using their best effort.

Results

To examine our first hypothesis, we used chi-square analyses to examine differences between our three groups. Consistent with expectations, the Control and ADHD groups passed the MSVT more frequently than the Feigning group ($\chi 2$ (2, 95) = 48.10, p < .001).

Figure 1. Pass/Fail Rates by Group on MSVT



To examine our second and third hypotheses, we conducted ANOVAs, which confirmed the Feigning group demonstrated significantly lower performance on all targeted clusters of the WJ-IV COG. Further, significant between group differences were identified across a measure of common ADHD symptoms.

Table 1. Group Means and Comparisons

	Control (n=39)		ADHD (n=16)		Feigning(n=40)		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*
BAARS Inattention Sx	.69	1.58	5.75	1.92	5.90	2.67	66.11**
BAARS Hyperactivity-Impulsivity Sx	.95	1.49	4.06	1.88	6.38	2.62	66.37**
BAARS SCT Sx	1.23	1.84	4.88	2.00	4.75	2.36	32.92**
Processing Speed Cluster	101.41	10.90	102.56	16.10	70.88	21.02	39.64**
Short-Term Working Memory Cluster	100.97	11.37	105.00	14.40	76.35	19.07	32.3**
Cognitive Efficiency Cluster	101.56	9.79	101.69	15.40	71.28	20.10	42.69**
Gf-Gc Cluster	101.95	13.01	106.75	13.11	96.35	15.25	3.55*

*p < .05 **p < .001

Acknowledgements

This project has been funded by a Woodcock Foundation Grant

Results Contd.

Finally, we ran correlations to determine the relationship between MSVT and WJ-IV COG Clusters. The MSVT was highly correlated with each cluster of the WJ-IV COG, with the exception of the Gf-Gc composite, which showed a small correlation to the MSVT.

Table 2. Correlation Between MSVT and WJ-IV COG Clusters

	MSVT	Processing Speed Cluster	Working Memory Cluster	Cognitive Efficiency Cluster
MSVT				
Processing Speed Cluster	0.71**			
Working Memory Cluster	0.71**	0.69**		
Cognitive Efficiency Cluster	0.76**	0.91**	0.88**	
Gf-Gc Cluster	0.23*	0.37**	0.47**	0.42**

*p < .05 **p < .001

Discussion

While these preliminary results limit the generalizability of the findings, the results suggest that select WJ-IV COG cluster scores do successfully discriminate between groups of varying effort at a similar level to the MSVT. Consistent with our hypotheses, the Feigning group failed effort testing more frequently than the Control or ADHD groups, and demonstrated far weaker performance across each of the WJ clusters than either the Control or ADHD group. In addition, the MSVT and WJ clusters correlate significantly, suggesting that WJ-IV COG clusters show promise in identifying individuals who feign impairment.

References

Kirkwood, M. W., & Kirk, J. W. (2010). The base rate of suboptimal effort in a pediatric mild TBI sample: Performance on the Medical Symptom Validity Test. *The Clinical Neuropsychologist*, 24, 860-872.

Schrank, F. A., McGrew, K. S., & Mather, N. (2014). *Woodcock-Johnson IV Tests of Cognitive Abilities*. Rolling Meadows, IL: Riverside.

Appendix D

National Association of School Psychologists 2019 Annual Conference Poster Presentation

Identifying Suboptimal Effort With the WJ-IV COG

Laura Spenceley, Ph.D. [1], Whitney L.M. Wood, Ph.D. [2], Nicole Maether, M.S.[1], & Raychel Kramer, B.A. [1]

[1] State University of New York at Oswego [2]Le Moyne College

Introduction

Students may do poorly on cognitive and academic tests for a variety of reasons (for review, see Kirkwood, 2015). As school psychologists, we need efficient and accurate methods to assess student effort in order to make valid and evidenced-based decisions for our students. Embedded validity indicators (EVIs) eliminate the need to administer an additional measure of effort, as EVIs are scores derived and validated from subtests embedded within standardized tests which are commonly used by school psychologists. Several clusters of the Woodcock Johnson IV Test of Cognitive Abilities (WJ-IV COG; Schrank, Mather & McGrew, 2014) have potential to serve as EVIs.

The purpose of this study was to determine if select WJ-IV COG tests would discriminate between participants who were asked to do their best (Control Group), participants who were told to modify their performance as if they had ADHD (Feigning Group), and a group of students who have an ADHD diagnosis (ADHD Group), and (b) whether the embedded tasks could discriminate between groups at a similar level to an established independent measure of effort (i.e., the MSVT).

We hypothesized the Control and ADHD groups would pass effort testing more frequently than the Feigning group. We also expected the Feigning group would show significantly weaker performance than the Control or ADHD groups across the Short-Term Working Memory, Cognitive Processing Speed, Cognitive Efficiency, and Gf-Gc clusters of the WJ-IV COG. We also expected the Feigning group would report symptoms consistent with the ADHD group. Further, we expected the results from the MSVT would correlate positively with scores from the WJ-IV COG clusters.

Method

Participants

142 participants (112 without ADHD and 28 with ADHD) were recruited from one private and one public university in the Northeast. Typical participants in the study were randomly assigned to one of two groups. A portion of the sample (n = 54) formed a Control group, who were told to comple the task using their best effort. The other typical participants comprised the Feigning group (n = 58) and were prompted to feign ADHD symptoms across tasks. Individuals with ADHD (n = 28) formed the ADHD group, who were told to complete the task using their best effort.

Results

To examine our first hypothesis, we used chi-square analyses to examine differences between our three groups. Consistent with expectations, the Control and ADHD groups passed the MSVT more frequently than the Feigning group and reported higher levels of ADHD symptoms than either the ADHD or Control Group (see Figure 1 and Table 1).

Figure 1. Pass/Fail Rates by Group on MSVT

χ^2 (2, 140) = 75.32, p < .001

To examine our second hypothesis, we conducted ANOVAs, which confirmed the Feigning group demonstrated significantly lower performance on all measured clusters of the WJ-IV COG (see Table 1).

Table 1. Group Means and Comparisons

	Control (n = 54)		ADHD (n = 28)		Feigning (n = 58)		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*
Short-Term Working Memory Cluster	100.62	11.33	103.14	13.26	77.29	18.21	44.16*
Processing Speed Cluster	100.26	11.47	101.93	13.37	73.66	21.35	45.19*
Cognitive Efficiency Cluster	100.72	10.50	101.00	13.48	74.00	19.62	52.72*
Gf-Gc Cluster	101.74	12.23	104.89	12.43	94.52	15.72	6.57**
BAARS-IV Inattention Sx	0.81	1.71	5.59	2.41	6.39	2.58	93.60*
BAARS-IV Hyperactive-Impulsive Sx	1.09	1.80	4.07	1.66	6.77	2.26	108.51**

*p < .0001, **p = .002

Results Cont.

Finally, we ran correlations to determine the relationship between passing the MSVT and WJ-IV COG Clusters. The MSVT was significantly correlated with every cluster with the exception of Gf-Gc (see Table 2).

Table 2. Correlations Between MSVT and WJ-IV COG Clusters

	MSVT	ST Working Memory	Processing Speed	Cognitive. Efficiency
MSVT				
ST Working Memory	.68*			
Processing Speed	.66*	.70*		
Cognitive Efficiency	.70*	.87*	.90*	
Gf-Gc Cluster	.26**	.52*	.42*	.48*

*p < .0001, **p = .002

Discussion

Though these data represent a partial sample, the results suggest that select WJ-IV COG cluster scores do successfully discriminate between groups of varying effort at a similar level to the MSVT. Consistent with our hypotheses, the Feigning group failed effort testing on the MSVT more frequently than the Control or ADHD groups. The Feigning group also demonstrated significantly weaker performance across each of the WJ clusters than either the Control or ADHD group. Further, though additional analysis is needed, the selected WJ-IV COG clusters show significant correlations to the MSVT, indicating some support for their use as EVIs.

References

Kirkwood, M. W., & Kirk, J. W. (2010). The base rate of suboptimal effort in a pediatric mild TBI sample: Performance on the Medical Symptom Validity Test. *The Clinical Neuropsychologist*, 24, 860-872.

Schrank, F. A., McGrew, K. S., & Mather, N. (2014). *Woodcock-Johnson IV Tests of Cognitive Abilities*. Rolling Meadows, IL: Riverside.

Research funded through grant from the Woodcock Foundation

Appendix E

Costs and Expenditures

Item	Date Received	Net Cost	Notes
Cost Advance – Participant Pay, to L. Spenceley, total	September 2017 $2,500.00 December 2018 $650.00 July 2019 Returned Unused Advance ($300.00)	$2,850.00	
Reimbursement for Participant Pay, L. Spenceley	December 2018	$100.00	
Cost Advance – Participant Pay, to W. Wood, total	January 2019 $325.00 July 2019 Returned Unused Advance ($200.00)	$125.00	
Reimbursement for Participant Pay, W. Wood	January 2019	$925.00	
Woodcock Johnson Tests of Cognitive Abilities, Fourth Edition, including Test Records	November 2017	$2,942.61	
Green's MSVT for Windows (Program) and uses	August 15, 2017	$1,370.88	
Barkley Adult ADHD Rating Scale	July 26, 2017	$140.25	
Total Project Costs:		$8,453.74	
Total Funds Received:		$8,953.74	
Refund to Sponsor:		$ 500.00	To be mailed under separate cover

Breakdown of Participant Pay

Oswego site

- 4 participants paid directly by Dr. Spenceley – reimbursed – no money owed
- 114 participants paid through cash advance to Dr. Spenceley – would have covered 126 participants, only 114 run. $300 unused funds.

LeMoyne site

- 37 participants paid directly by Dr. Wood – reimbursed – no money owed
- 5 participants paid through cash advance to Dr. Wood – would have covered 13 participants, only 5 run. $200 in unused funds

Total Unused Cash Advance Funds: $500.00

Appendix F

Summary of Participants Paid at Oswego Site

ID	Date/Time of Participation	Date of Pay	Amount of Pay
1	10/22/2018 14:14	10/23/2018	$25.00
2	10/15/2018 10:23	10/15/2018	$25.00
3	10/16/2018 15:20	10/16/2018	$25.00
4	9/28/2017 14:36	9/28/2017	$25.00
5	11/15/2017 13:55	11/15/2017	$25.00
6	11/29/2017 14:02	11/29/2017	$25.00
7	11/12/2018 14:50	11/12/2018	$25.00
8	10/4/2017 15:46	10/4/2017	$25.00
9	10/9/2017 12:26	10/9/2017	$25.00
10	10/25/2017 13:39	10/25/2017	$25.00
11	11/13/2018 15:48	11/13/2018	$25.00
12	10/24/2018 15:36	10/24/2018	$25.00
13	12/12/2017 10:52	12/12/2017	$25.00
14	3/19/2018 11:50	3/19/2018	$25.00
15	11/14/2018 14:59	11/14/2018	$25.00
16	10/31/2018 11:37	10/31/2018	$25.00
17	10/31/2018 13:48	10/31/2018	$25.00
18	4/6/2018 14:28	4/6/2018	$25.00
21	11/15/2018 17:11	11/15/2018	$25.00
22	3/28/2019 11:46	3/28/2019	$25.00
23	4/12/2018 15:56	4/12/2018	$25.00
24	2/21/2019 14:28	2/21/2019	$25.00
26	4/2/2018 15:16	4/2/2018	$25.00
28	11/19/2018 13:54	11/19/2018	$25.00
29	11/20/2018 14:00	11/20/2018	$25.00
31	3/26/2019 15:09	3/26/2019	$25.00
32	3/26/2018 10:38	3/26/2018	$25.00
33	4/10/2019 12:48	4/10/2019	$25.00
34	4/4/2018 16:23	4/4/2018	$25.00
35	5/1/2019 13:41	5/1/2019	$25.00
44	3/7/2018 11:42	3/7/2018	$25.00
47	4/30/2018 13:36	4/30/2018	$25.00
48	5/9/2018 10:42	5/9/2018	$25.00
49	5/7/2018 13:31	5/7/2018	$25.00
50	4/4/2018 12:40	4/4/2018	$25.00
55	4/2/2018 16:55	4/2/2018	$25.00
56	4/12/2018 11:52	4/12/2018	$25.00
57	3/28/2018 17:18	3/28/2018	$25.00

58	12/11/2017 16:04	12/11/2017	$25.00
62	4/26/2018 15:46	4/26/2018	$25.00
76	4/18/2018 9:48	4/18/2018	$25.00
77	4/19/2018 13:18	4/19/2018	$25.00
79	4/25/2018 16:15	4/25/2018	$25.00
83	4/23/2018 8:59	4/23/2018	$25.00
86	5/7/2018 11:12	5/7/2018	$25.00
87	3/7/2018 16:23	3/7/2018	$25.00
90	10/19/2018 11:13	10/19/2018	$25.00
95	12/11/2017 14:35	12/11/2017	$25.00
96	5/3/2018 12:23	5/3/2018	$25.00
117	12/12/2017 13:02	12/12/2017	$25.00
200	11/1/2017 13:54	11/1/2017	$25.00
201	11/19/2018 15:12	11/19/2018	$25.00
202	10/3/2017 9:48	10/3/2017	$25.00
203	12/4/2017 12:45	12/4/2017	$25.00
204	10/23/2017 13:51	10/23/2017	$25.00
205	4/25/2018 17:52	4/25/2018	$25.00
206	12/6/2017 13:49	12/6/2017	$25.00
207	10/18/2017 14:19	10/18/2017	$25.00
208	12/8/2017 9:57	12/8/2017	$25.00
209	5/3/2018 15:29	5/3/2018	$25.00
210	2/26/2018 17:05	2/26/2018	$25.00
211	12/11/2017 11:46	12/11/2017	$25.00
212	2/20/2018 11:57	2/20/2018	$25.00
213	3/5/2018 17:27	3/5/2018	$25.00
214	10/24/2018 13:52	10/24/2018	$25.00
215	10/23/2018 13:19	10/23/2018	$25.00
216	10/16/2018 13:38	10/16/2018	$25.00
217	10/22/2018 12:17	10/22/2018	$25.00
218	10/22/2018 15:43	10/22/2018	$25.00
219	11/5/2018 12:18	11/5/2018	$25.00
220	11/13/2018 14:00	11/13/2018	$25.00
221	11/7/2018 13:44	11/7/2018	$25.00
222	11/14/2018 12:56	11/14/2018	$25.00
223	10/24/2018 16:26	10/24/2018	$25.00
224	11/6/2018 13:31	11/6/2018	$25.00
225	11/18/2018 13:45	11/18/2018	$25.00
226	4/11/2018 16:49	4/11/2018	$25.00
227	11/26/2018 15:28	11/26/2018	$25.00
230	4/23/2018 11:40	4/23/2018	$25.00
231	4/5/2018 13:53	4/5/2018	$25.00
232	11/7/2018 11:33	11/7/2018	$25.00

236	4/6/2018 13:41	4/6/2018	$25.00
252	3/19/2018 16:56	3/19/2018	$25.00
253	3/26/2018 16:48	3/26/2018	$25.00
255	4/11/2018 11:40	4/11/2018	$25.00
256	4/9/2018 12:26	4/9/2018	$25.00
259	4/5/2018 12:29	4/5/2018	$25.00
260	4/18/2018 17:09	4/18/2018	$25.00
261	4/19/2018 15:17	4/19/2018	$25.00
264	5/10/2018 11:37	5/10/2018	$25.00
274	4/19/2018 12:12	4/19/2018	$25.00
279	11/12/2018 13:22	11/12/2018	$25.00
280	5/9/2018 13:57	5/9/2018	$25.00
291	5/10/2018 12:54	5/10/2018	$25.00
295	4/23/2018 16:51	4/23/2018	$25.00
300	11/15/2017 15:36	11/15/2017	$25.00
301	10/5/2017 14:22	10/5/2017	$25.00
302	10/11/2017 16:11	10/11/2017	$25.00
303	11/20/2017 14:03	11/20/2017	$25.00
304	10/8/2018 12:31	10/8/2018	$25.00
305	10/22/2018 10:25	10/22/2018	$25.00
306	11/10/2017 13:21	11/10/2017	$25.00
307	11/1/2017 15:45	11/1/2017	$25.00
308	10/9/2018 15:27	10/9/2018	$25.00
309	10/15/2018 15:38	10/15/2018	$25.00
310	3/5/2019 13:41	3/5/2019	$25.00
311	2/13/2019 13:48	2/13/2019	$25.00
312	12/8/2017 11:48	12/8/2017	$25.00
315	12/12/2017 15:24	12/12/2017	$25.00
319	4/16/2018 16:54	4/16/2018	$25.00
322	11/26/2018 12:38	11/26/2018	$25.00
333	12/13/2017 12:21	12/13/2017	$25.00
338	4/4/2018 13:44	4/4/2018	$25.00
340	2/19/2019 18:30	2/19/2019	$25.00
342	2/19/2019 14:31	2/19/2019	$25.00
343	5/15/2019 17:09	5/15/2019	$25.00
344	4/6/2018 12:06	4/6/2018	$25.00
353	10/2/2018 14:18	10/2/2018	$25.00
			$2,950.00

Appendix G

Summary of Funds Paid at LeMoyne Site

ID	Date of Participation	Date of Pay	Amount of Pay
1101	11/15/2017	11/15/2017	$25
1102	11/30/2017	11/30/2017	$25
1103	12/4/2017	12/4/2017	$25
1104	12/6/2017	12/6/2017	$25
1106	4/20/2018	4/20/2018	$25
1107	4/20/2018	4/20/2018	$25
1108	4/26/2018	4/26/2018	$25
1109	5/1/2018	5/1/2018	$25
1110	5/1/2018	5/1/2018	$25
1111	5/9/2018	5/9/2018	$25
1112	10/2/2018	10/2/2018	$25
1113	10/15/2018	10/15/2018	$25
1114	10/23/2018	10/23/2018	$25
1115	4/30/2019	4/30/2019	$25
1116	5/7/2019	5/7/2019	$25
1201	10/11/2018	10/11/2018	$25
1202	11/21/2017	11/21/2017	$25
1203	10/15/2018	10/15/2018	$25
1205	3/13/2018	3/13/2018	$25
1206	4/6/2018	4/6/2018	$25
1207	10/10/2018	10/10/2018	$25
1208	10/23/2018	10/23/2018	$25
1209	11/1/2018	11/1/2018	$25
1212	4/6/2018	4/6/2018	$25
1301	11/15/2017	11/15/2017	$25
1302	11/29/2017	11/29/2017	$25
1303	12/4/2017	12/4/2017	$25
1304	12/4/2017	12/4/2017	$25
1305	2/8/2018	2/8/2018	$25
1305	2/20/2018	2/20/2018	$25
1307	4/20/2018	4/20/2018	$25
1308	4/20/2018	4/20/2018	$25
1309	5/9/2018	5/9/2018	$25
1310	9/24/2018	9/24/2018	$25
1311	9/24/2018	9/24/2018	$25
1312	9/28/2018	9/28/2018	$25
1313	10/12/2018	10/12/2018	$25
1314	10/25/2018	10/25/2018	$25

1315	11/1/2018	11/1/2018	$25
1316	4/30/2019	4/30/2019	$25
1317	5/3/2019	5/3/2019	$25
1318	5/8/2019	5/8/2019	$25
			$1,050