

MANAGEMENT CONSULTING



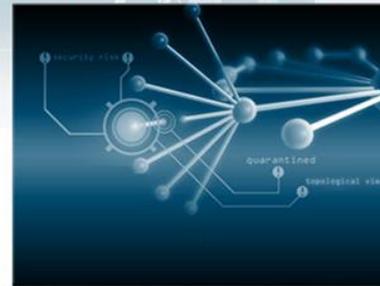
MODELING AND SIMULATION



SOFTWARE ENGINEERING



INFORMATION ASSURANCE



VA CVE Modeling and Simulations Focus Review Model

Sensitivity Analysis March 18th, 2016

Analysis Conducted:

- Visio Models updated (Note: Does not include changes to the intake process received last Thursday)
 - Addition of VET Interactions
 - Verification Consultation
 - VET initiated Calls
- **Resolved 5.5% of Applications previously exiting immediately upon entering system**
- Simulation Model updated
 - Case Analyst pool broken out
 - Updates based on latest Visio changes
- Sensitivity Analysis done on
 - Focus Review Model
- Scenarios ran for 8 hour workdays with maximum allowed utilization of 85% and 90% for contractors (Assessors/Case Analysts) and *up-to 70% for Feds
- Scenarios ran starting with 2 Assessors and up, to determine team size needed for processing 3,500 applications

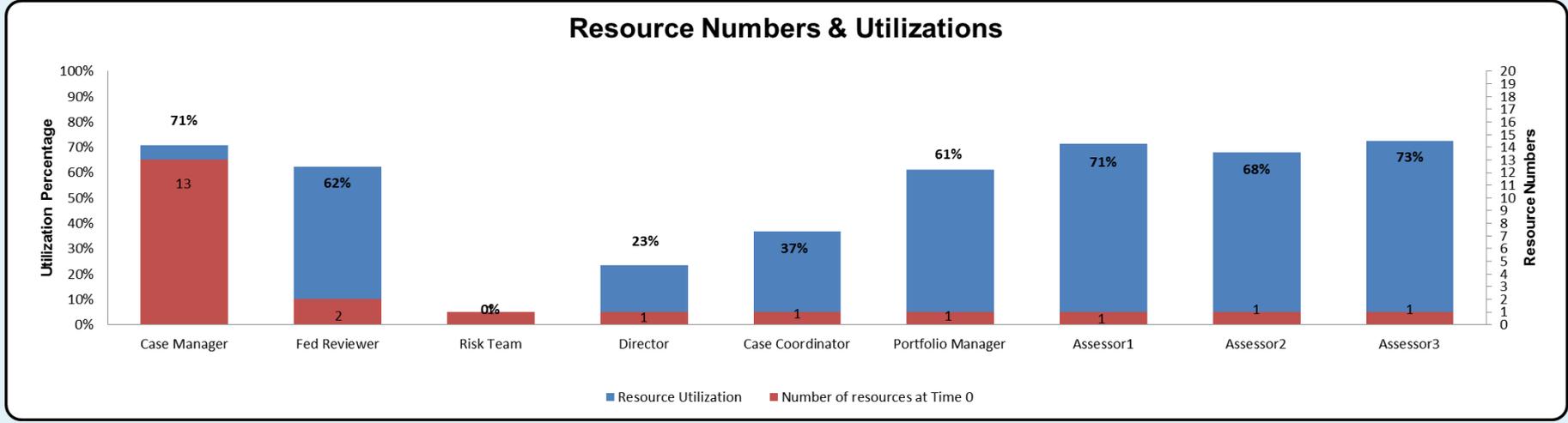
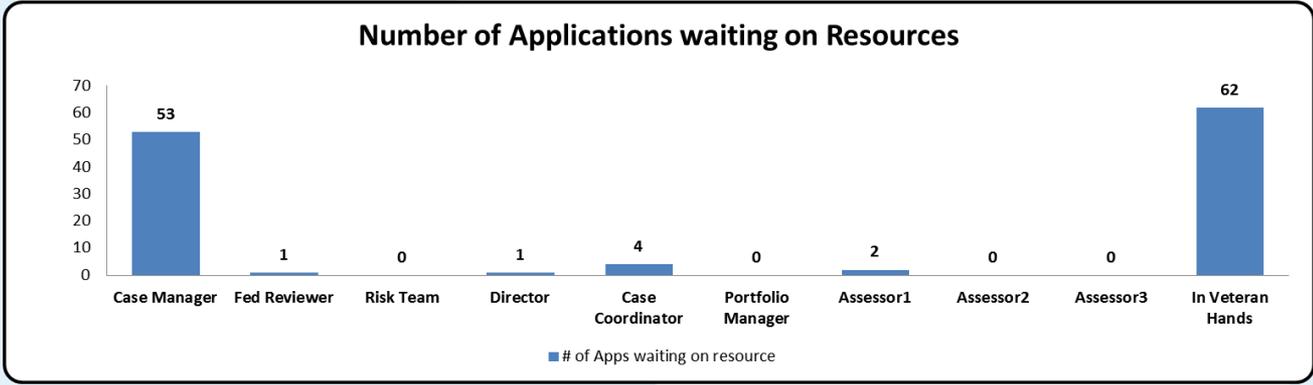
Results Summary:

- 150 Fewer applications processed for the 3 Assessors, 13 CM, 2 Fed configuration at Contractor and Fed at 70%
- 2 Assessors, 13 Case Analysts, 2 Fed are required for processing 3593 Applications
 - Within 8 Hours a day at 90% utilization for Contractors. 63% utilization for Feds
- Costs are higher roughly 20% after the Case Analyst pool is broken out

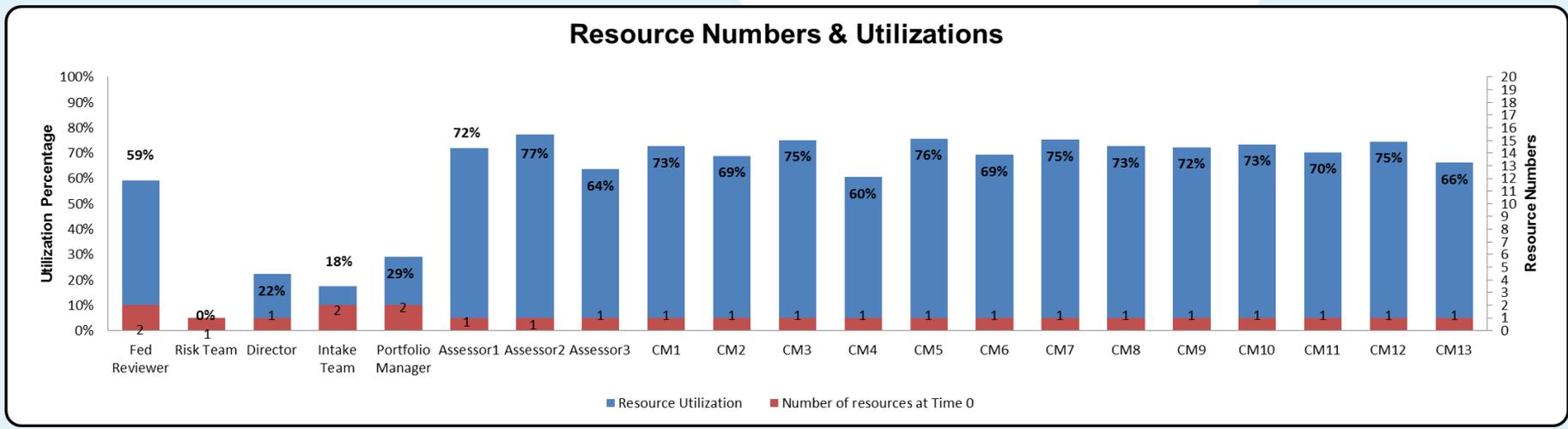
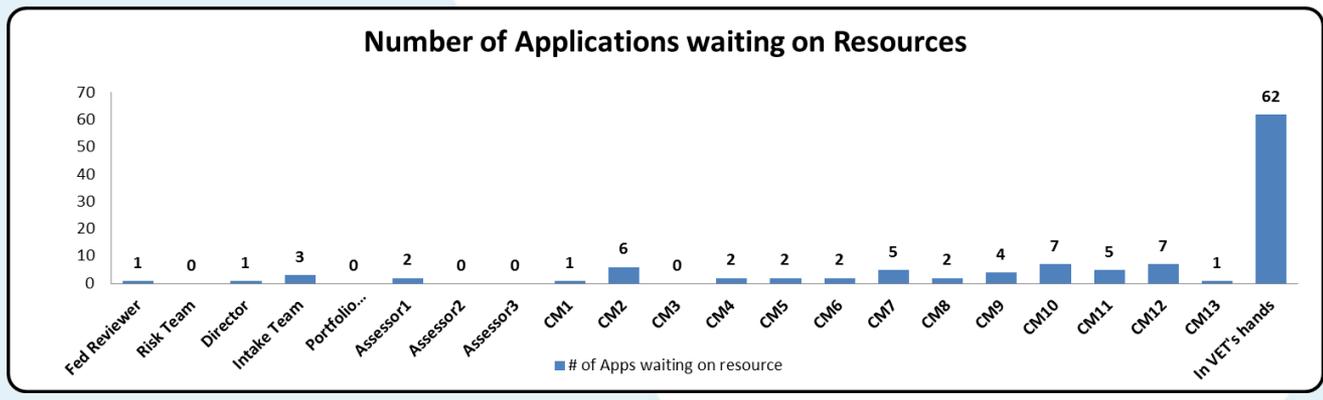
Baseline

- 3 Assessors
 - 13 Case Analysts
 - 2 Fed
-
- 150 fewer applications processed after breaking out Case Analyst Pool

Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
3503	954	55	2179	2	7.2	15.9	3.9

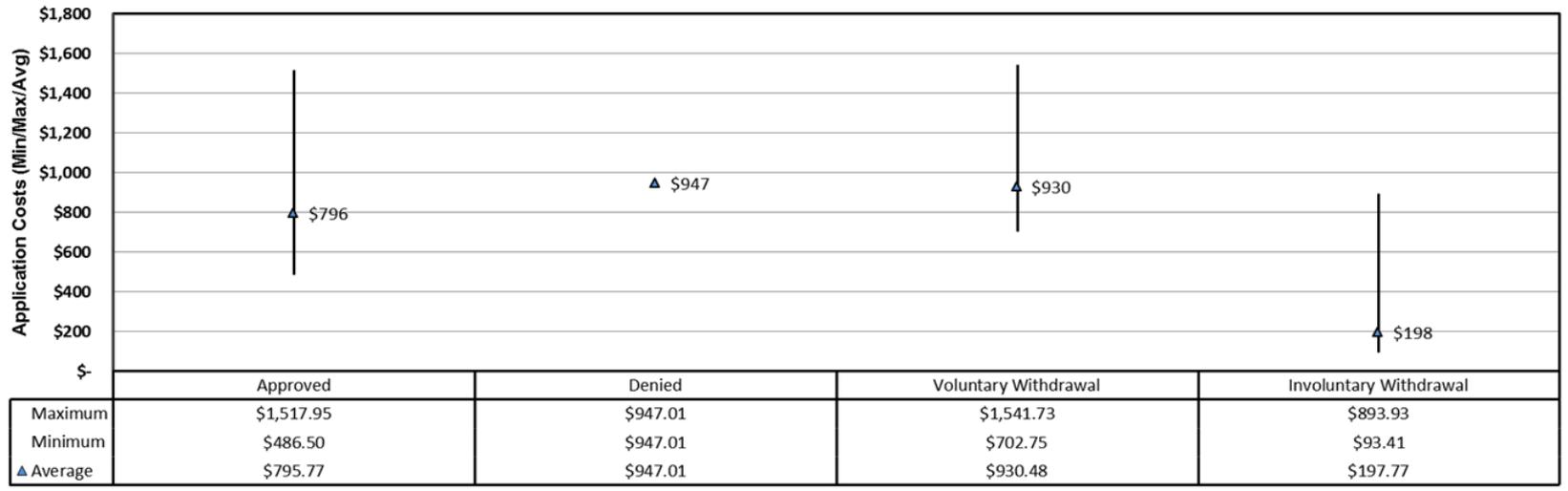


Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
3349	893	62	2085	5	8.8	17.6	4.6



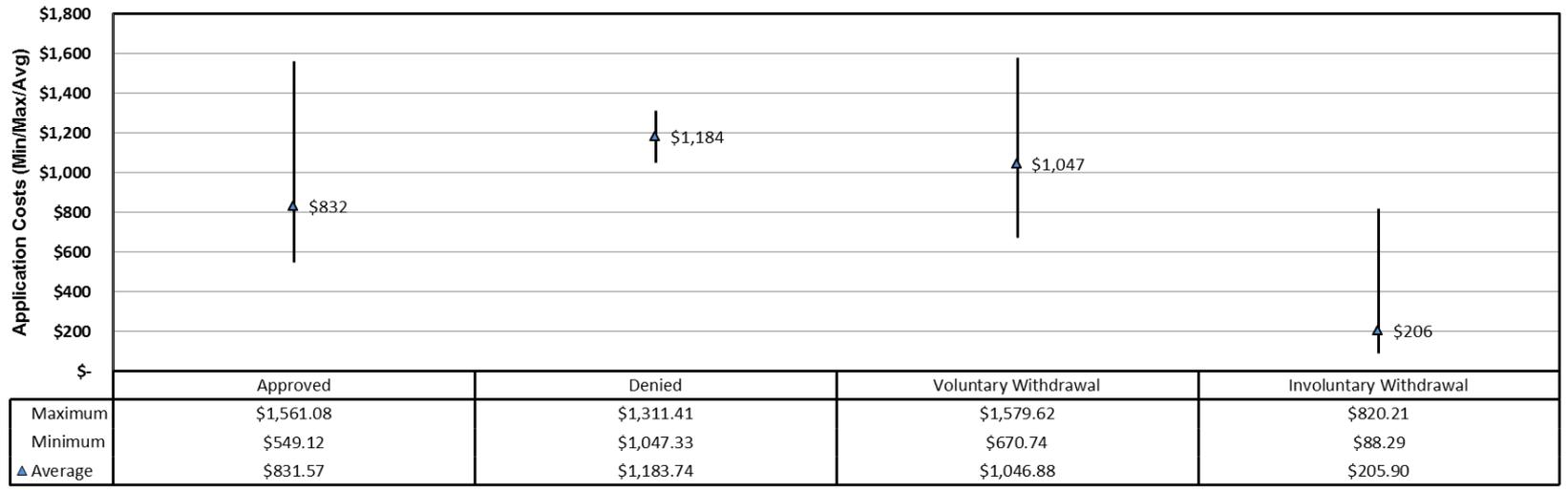
Labor Rate Scenario 2	
Assessor	\$81.90
Case Manager	\$63.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



Labor Rate Scenario 2	
Assessor	\$81.90
Case Manager	\$63.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status

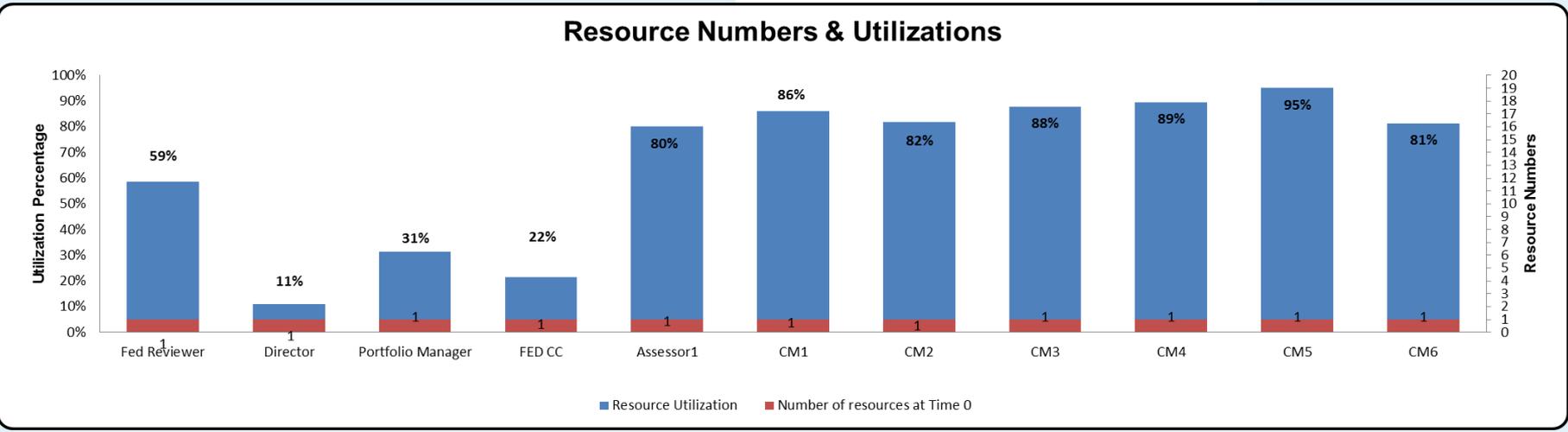
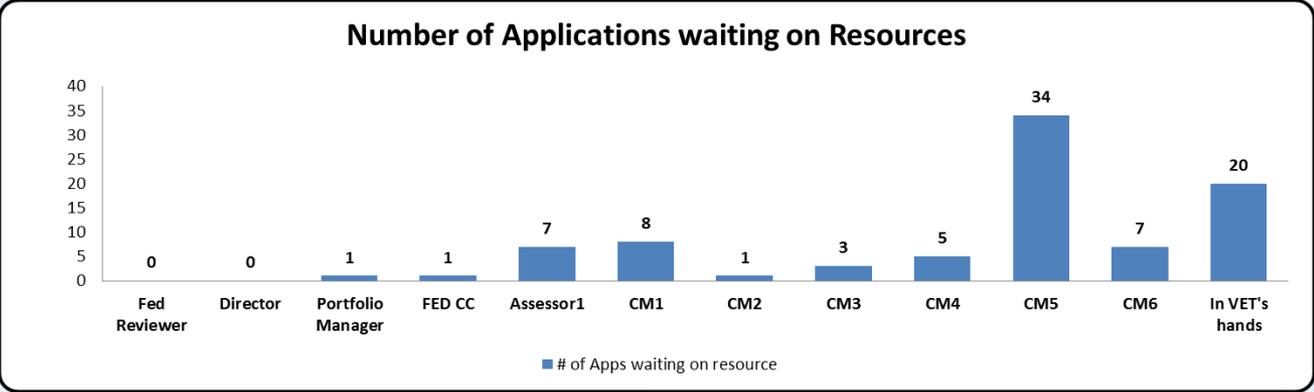


Scenario A

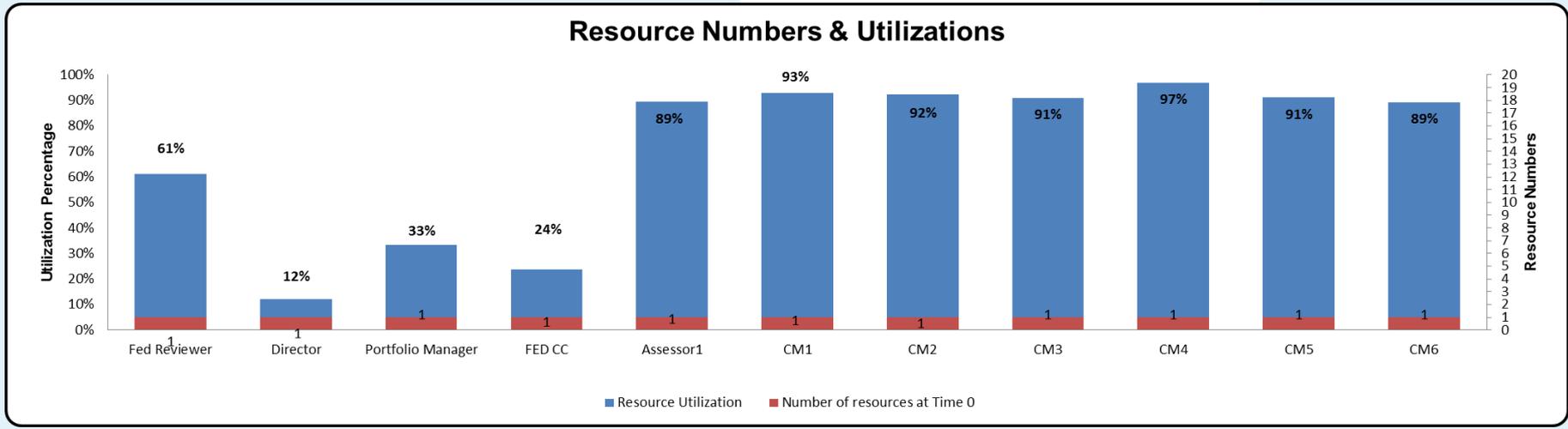
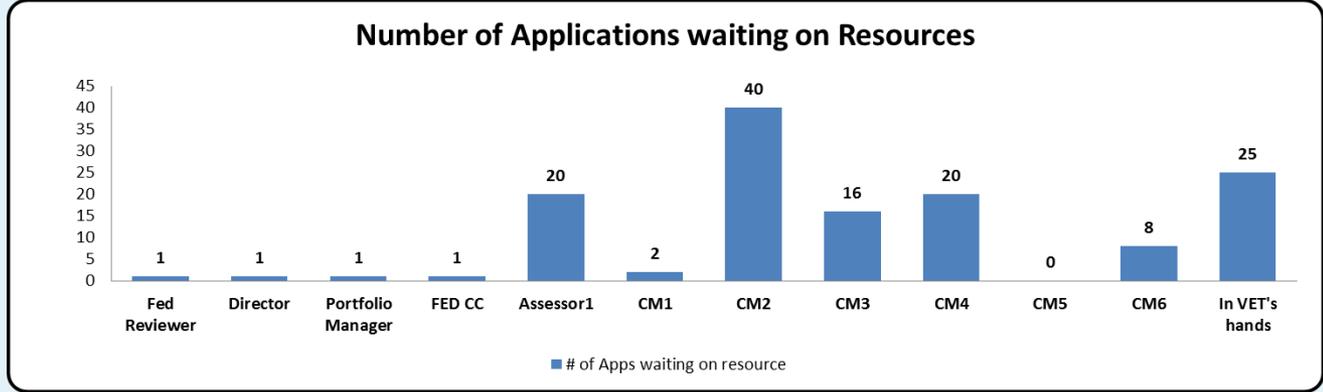
- 1 Assessors (~85% and ~90%)
- 6 Case Analysts (~85% and ~90%)
- 1 Fed (*~70%)

* If we'd want to keep the utilization of the Fed at 70%, about 0.9 Fed FTEs will be required. The model allows only whole numbers.

Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
1598	452	10	1018	13	18.5	27.1	8.6



Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
1752	484	14	1088	12	20.2	28.7	9.4

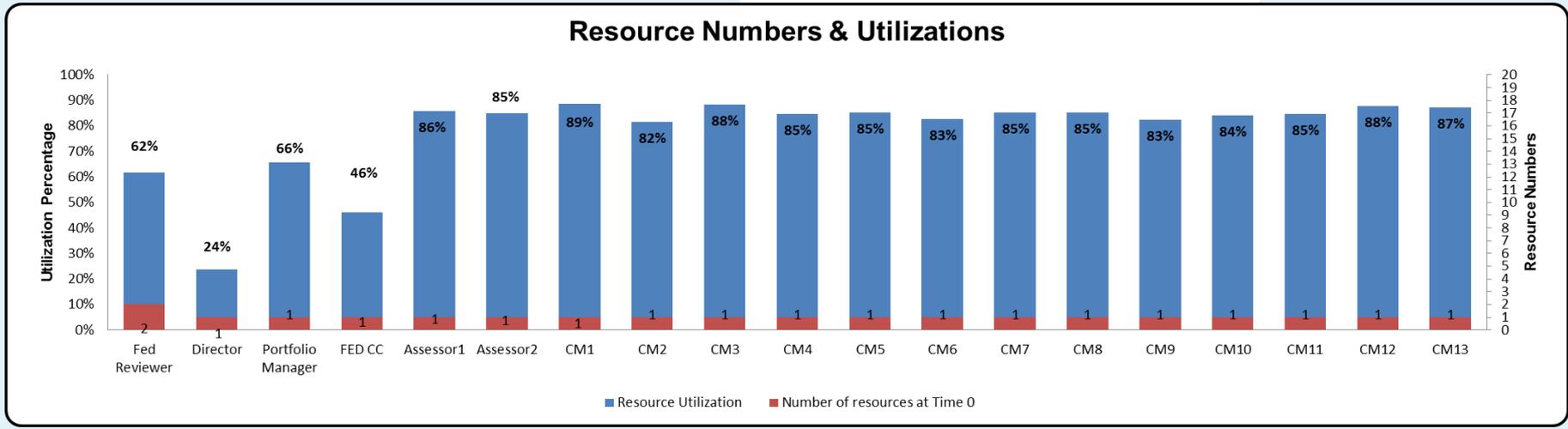
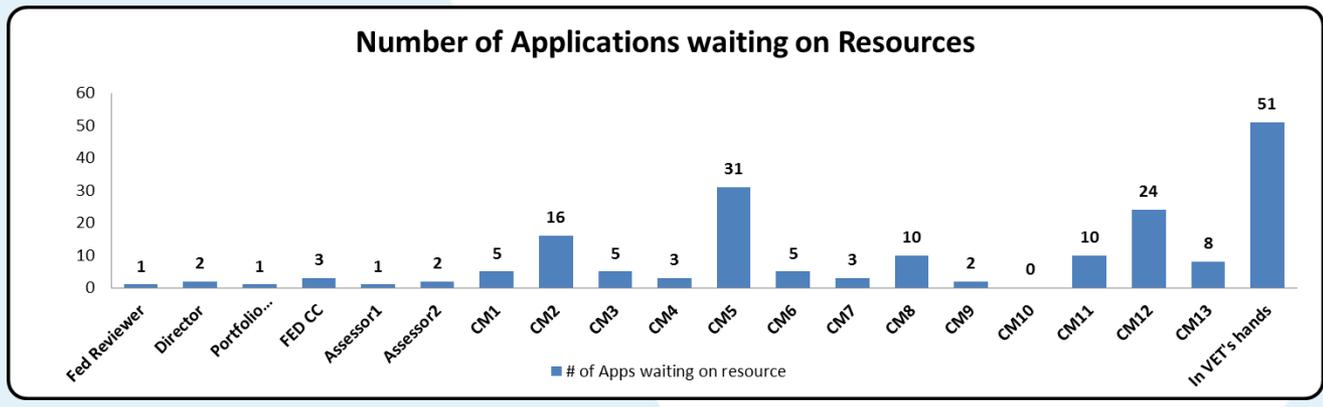


Scenario B

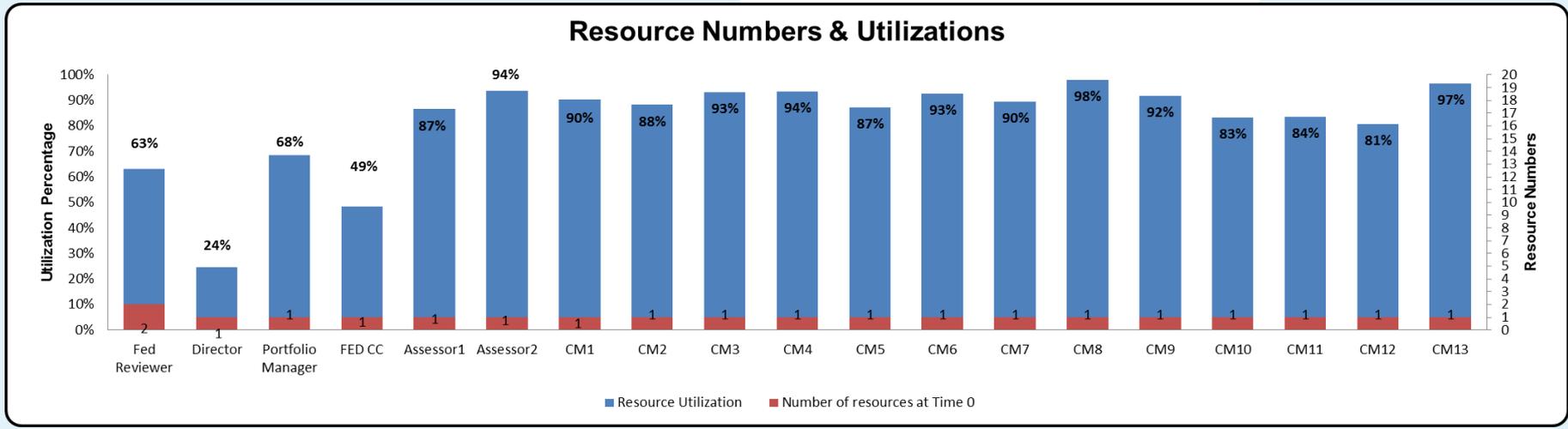
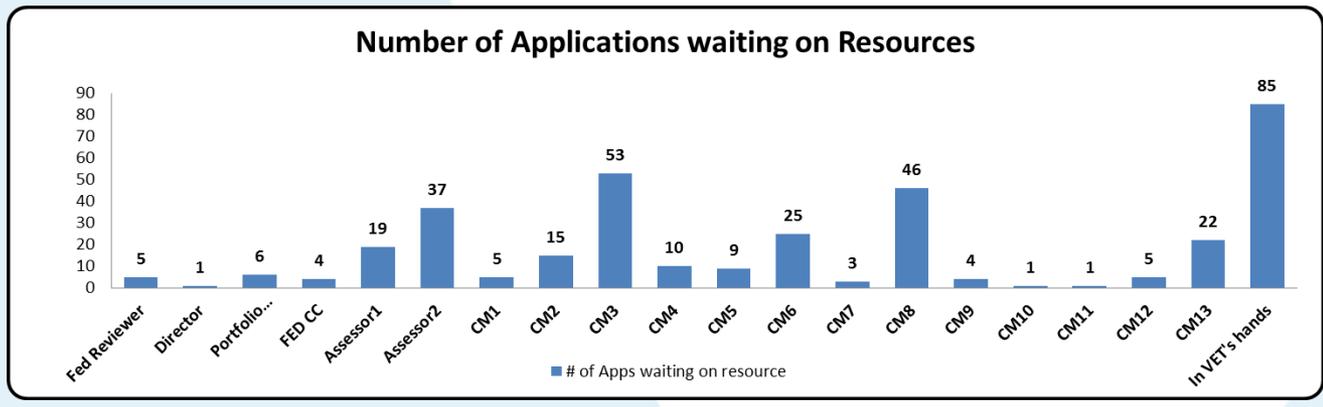
- 2 Assessors (85% and 90%)
- 13 Case Analysts (85% and 90%)
- 2 Fed (*70%)

* If we'd want to keep the utilization of the Fed at 70%, slightly less than two FTEs would be required. The model deals with whole numbers.

Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
3348	915	20	2188	24	14.7	23.4	7.5



Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
3593	934	25	2236	25	23.9	32.4	11



	Labor Rate Scenarios				
	1	2	3	4	5
Assessor	\$54.60	\$81.90	\$81.90	\$63.70	\$72.80
Case Manager	\$36.40	\$63.70	\$36.70	\$54.60	\$63.70
Fed Reviewer	\$62.22	\$62.22	\$62.22	\$62.22	\$62.22
Annualized (2080 hours)					
Assessor	\$113,568.00	\$170,352.00	\$170,352.00	\$132,496.00	\$151,424.00
Case Manager	\$75,712.00	\$132,496.00	\$76,336.00	\$113,568.00	\$132,496.00
Fed Reviewer	\$129,417.60	\$129,417.60	\$129,417.60	\$129,417.60	\$129,417.60

Focus Review Model Team Configuration		
Assessor	1	2
Case Analysts	6	13
Fed Reviewer(s)	1	2
Total Team Size	8	17
Total Application Capacity*	1752	3593
Total Cost by Labor Rate Scenarios		
1	\$697,258	\$1,470,227
2	\$1,094,746	\$2,321,987
3	\$757,786	\$1,591,907
4	\$943,322	\$2,000,211
5	\$1,075,818	\$2,284,131
Scenario 2 Cost/Application	\$398 To \$625	\$409 To \$646

Focus Review Model Utilizations		
Assessors	89%	90%
Case Analysts	92%	90%
Fed Reviewer(s)	61%	63%
Average Utilization	88%	87%

• Total Cost is based on resource rates multiplied by 2080 hours per year.

• The 1 Director, 1 Portfolio Manager, and 1 Risk Team are not included in the Team Size or Total Cost calculations, as they are constant for all scenarios.

Back-up

Analysis Conducted:

- Visio Models updated
- Simulation Models updated
- Sensitivity Analysis
 - Achievable Model
 - Focus Review Model

- Scenarios ran for 8 hour workdays with maximum allowed utilization of 70% (to adequately allow for holidays, vacation, illness, downtime, etc.).

- Scenarios ran starting with 2 Assessors and up, to determine team size needed for processing 3,500 applications

- Labor Rate Data Sensitivity conducted on the Team Configuration that reaches the 3500 applications milestone

Summary of Outputs

	Achievable Model Team Configuration									Focus Review Model Team Configuration	
Assessor	2	3	4	5	6	7	8	9	10	2	3
Case Manager	2	3	4	5	6	7	8	9	10	9	13
Intake Team	1	1	1	1	1	1	1	1	1	1	1
Fed Reviewer	1	1	1	1	2	2	2	2	2	2	2
Total Team Size	6	8	10	12	15	17	19	21	23	14	19
Total Application Capacity*	700	1050	1391	1752	2103	2445	2753	3092	3506	2386	3503
Total Cost by Labor Rate Scenarios											
1	\$629,845	\$819,125	\$1,008,405	\$1,197,685	\$1,516,382	\$1,705,662	\$1,894,942	\$2,084,222	\$2,273,502	\$1,289,246	\$1,705,662
2	\$856,981	\$1,159,829	\$1,462,677	\$1,765,525	\$2,197,790	\$2,500,638	\$2,803,486	\$3,106,334	\$3,409,182	\$1,913,870	\$2,614,206
3	\$744,661	\$991,349	\$1,238,037	\$1,484,725	\$1,860,830	\$2,107,518	\$2,354,206	\$2,600,894	\$2,847,582	\$1,408,430	\$1,884,126
4	\$743,413	\$989,477	\$1,235,541	\$1,481,605	\$1,857,086	\$2,103,150	\$2,349,214	\$2,595,278	\$2,841,342	\$1,667,806	\$2,254,574
5	\$819,125	\$1,103,045	\$1,386,965	\$1,670,885	\$2,084,222	\$2,368,142	\$2,652,062	\$2,935,982	\$3,219,902	\$1,876,014	\$2,557,422
Cost/Application	\$899.78	\$780.12	\$724.95	\$683.61	\$721.06	\$697.61	\$688.32	\$674.07	\$648.46	\$540.34	\$486.91

	Achievable Model Utilizations									Focus Review Model Utilizations	
Assessors	70%	71%	71%	71%	70%	70%	69%	70%	70%	71%	70%
Case Managers	67%	68%	68%	68%	67%	67%	66%	66%	67%	69%	71%
Intake Team	13%	20%	27%	34%	40%	47%	59%	59%	67%	25%	37%
Fed Reviewer(s)	25%	40%	52%	63%	38%	44%	56%	57%	64%	43%	62%
Average Utilization	52%	60%	64%	66%	63%	64%	66%	67%	68%	62%	68%

- Total Cost is based on resource rates multiplied by 2080 hours per year
- The 1 Director, and 1 Risk Team are not included in the Team Size or Total Cost calculations, as they are constant for all scenarios.

Achievable Model Runs

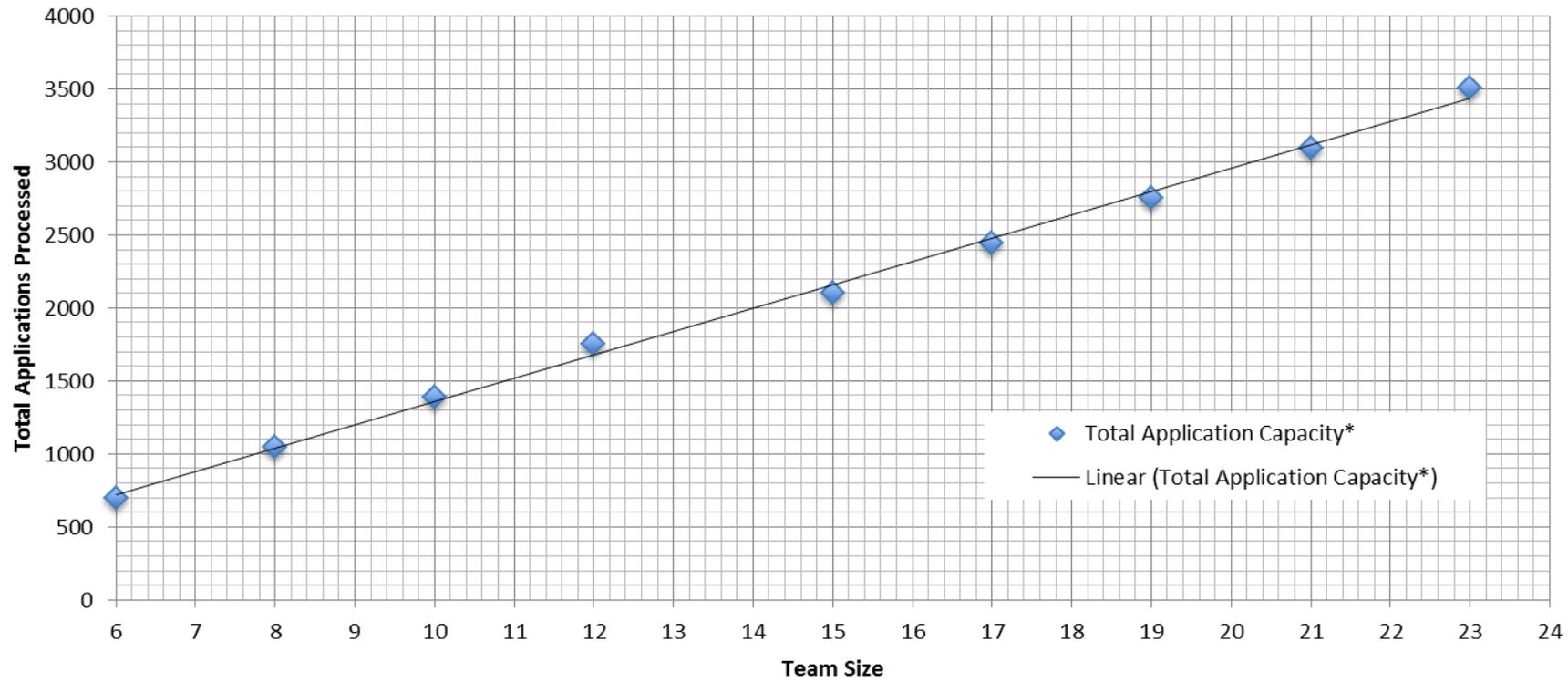
	Labor Rate Scenarios				
	1	2	3	4	5
Assessor	\$54.60	\$81.90	\$81.90	\$63.70	\$72.80
Case Manager	\$36.40	\$63.70	\$36.70	\$54.60	\$63.70
Intake Team	\$58.59	\$58.59	\$58.59	\$58.59	\$58.59
Fed Reviewer	\$62.22	\$62.22	\$62.22	\$62.22	\$62.22
	Annualized (2080 hours)				
Assessor	\$113,568.00	\$170,352.00	\$170,352.00	\$132,496.00	\$151,424.00
Case Manager	\$75,712.00	\$132,496.00	\$76,336.00	\$113,568.00	\$132,496.00
Intake Team	\$121,867.20	\$121,867.20	\$121,867.20	\$121,867.20	\$121,867.20
Fed Reviewer	\$129,417.60	\$129,417.60	\$129,417.60	\$129,417.60	\$129,417.60

Achievable Model Team Configuration									
Assessor	2	3	4	5	6	7	8	9	10
Case Manager	2	3	4	5	6	7	8	9	10
Intake Team	1	1	1	1	1	1	1	1	1
Fed Reviewer	1	1	1	1	2	2	2	2	2
Total Team Size	6	8	10	12	15	17	19	21	23
Total Application Capacity*	700	1050	1391	1752	2103	2445	2753	3092	3506
Total Cost by Labor Rate Scenarios									
1	\$629,845	\$819,125	\$1,008,405	\$1,197,685	\$1,516,382	\$1,705,662	\$1,894,942	\$2,084,222	\$2,273,502
2	\$856,981	\$1,159,829	\$1,462,677	\$1,765,525	\$2,197,790	\$2,500,638	\$2,803,486	\$3,106,334	\$3,409,182
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Cost/Application	\$899.78	\$780.12	\$724.95	\$683.61	\$721.06	\$697.61	\$688.32	\$674.07	\$648.46

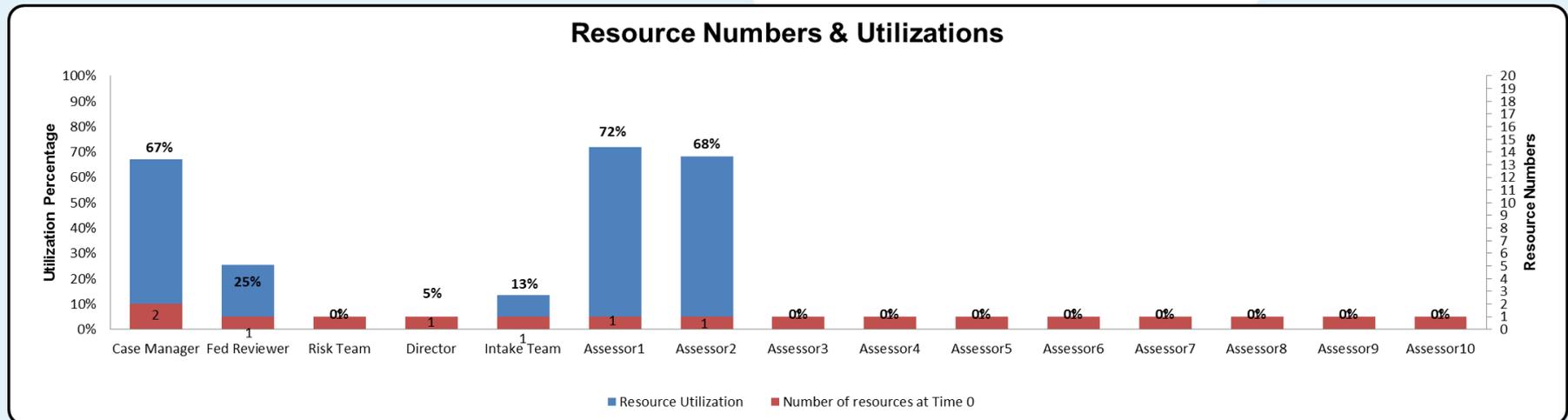
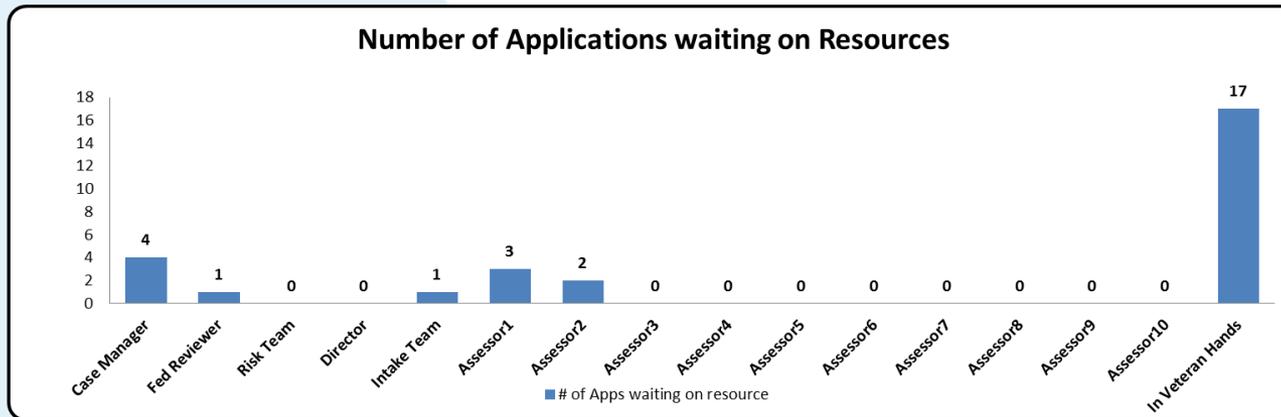
Achievable Model Utilizations									
Assessors	70%	71%	71%	71%	70%	70%	69%	70%	70%
Case Managers	67%	68%	68%	68%	67%	67%	66%	66%	67%
Intake Team	13%	20%	27%	34%	40%	47%	59%	59%	67%
Fed Reviewer(s)	25%	40%	52%	63%	38%	44%	56%	57%	64%
Average Utilization	52%	60%	64%	66%	63%	64%	66%	67%	68%

- Total Cost is based on resource rates multiplied by 2080 hours per year
- The 1 Director, and 1 Risk Team are not included in the Team Size or Total Cost calculations, as they are constant for all scenarios.

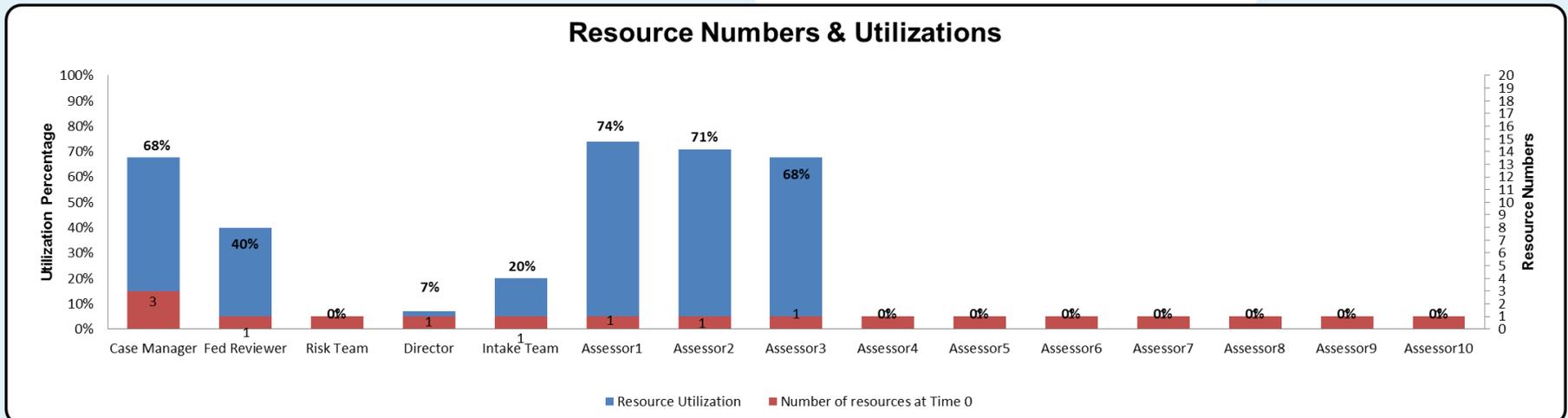
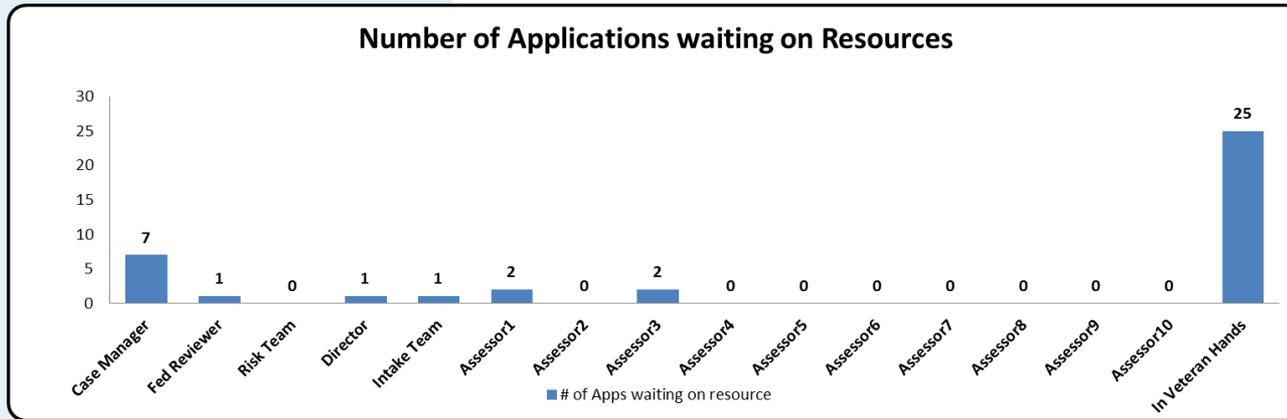
Total Apps Potentially Processed per Team Size, 8 hours



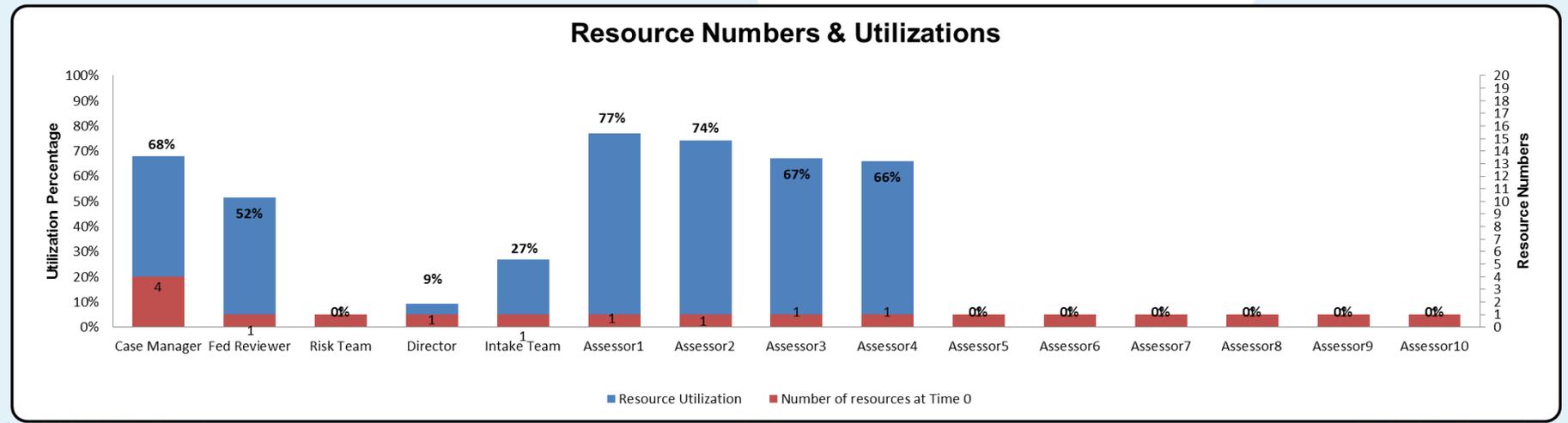
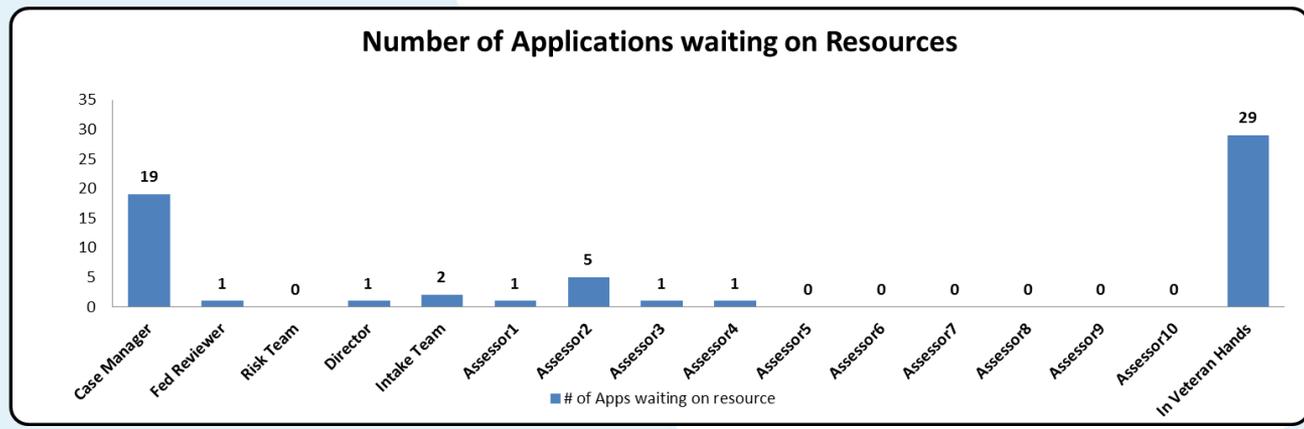
Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
700	190	5	433	0	9.3	17	3.4



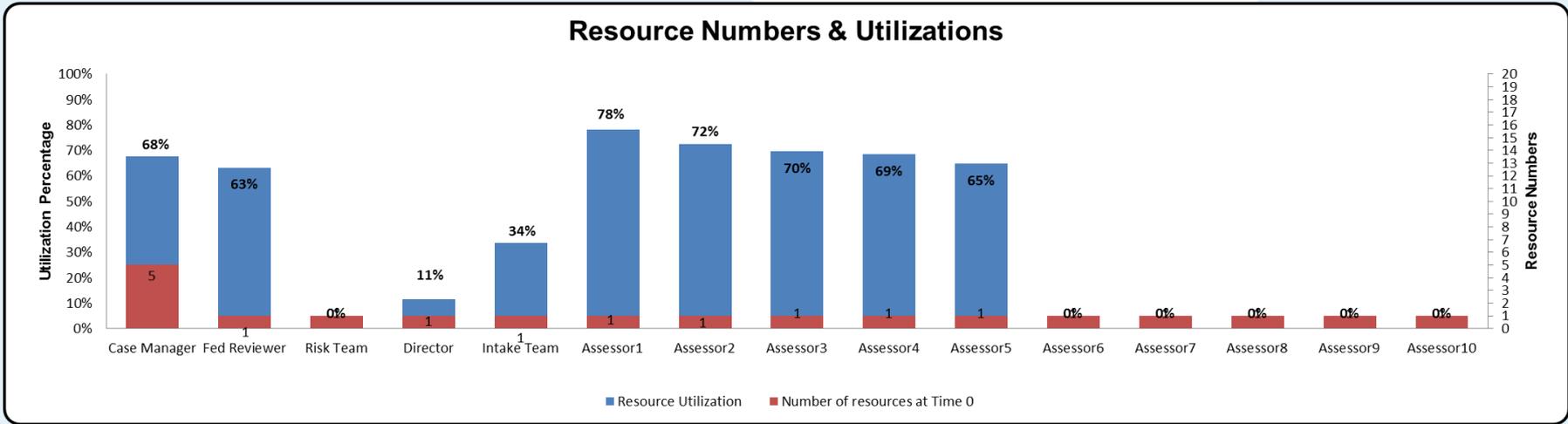
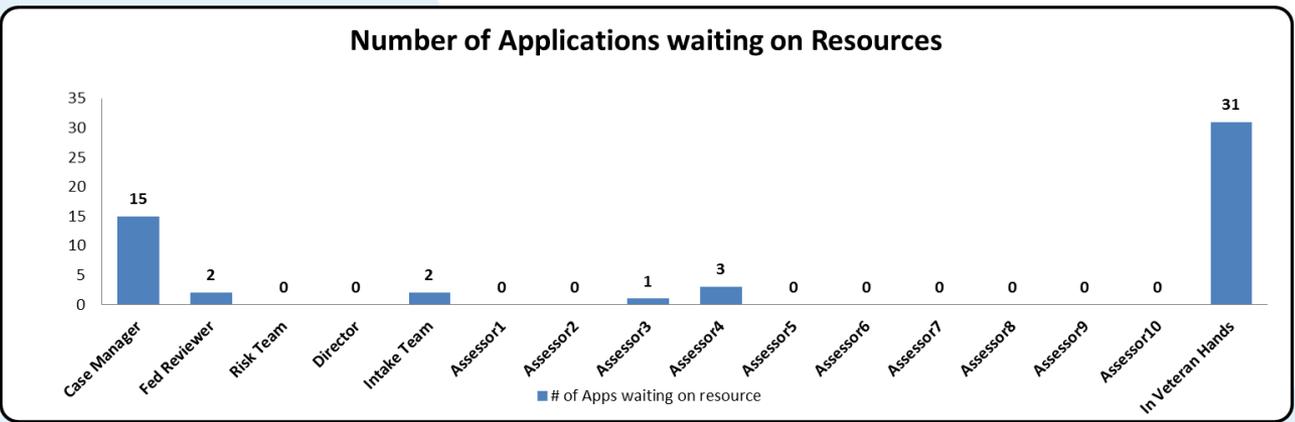
Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
1050	285	14	643	1	9.4	17.4	3.7



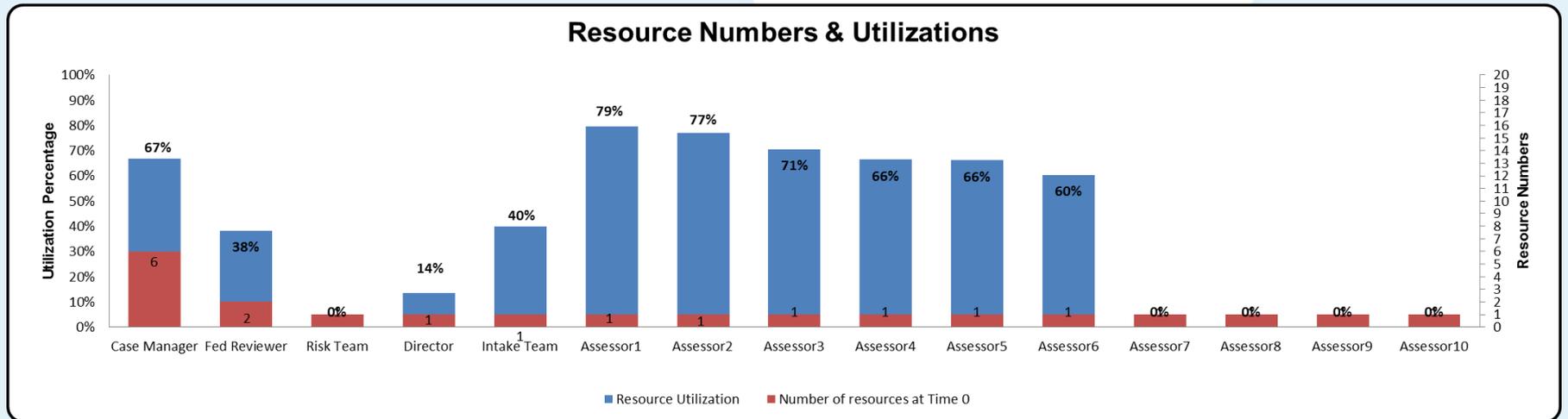
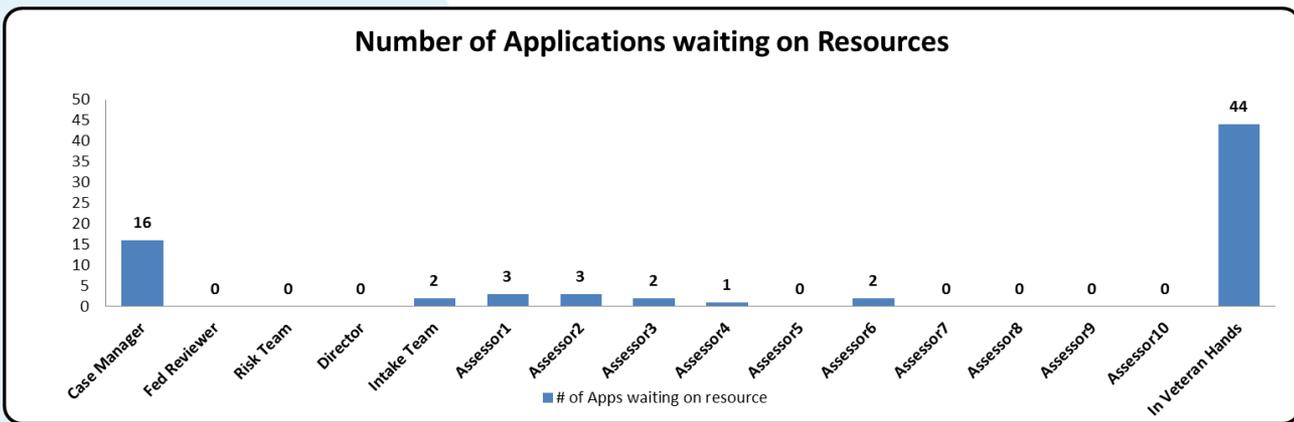
Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
1391	366	21	872	1	9.1	16.9	3.6



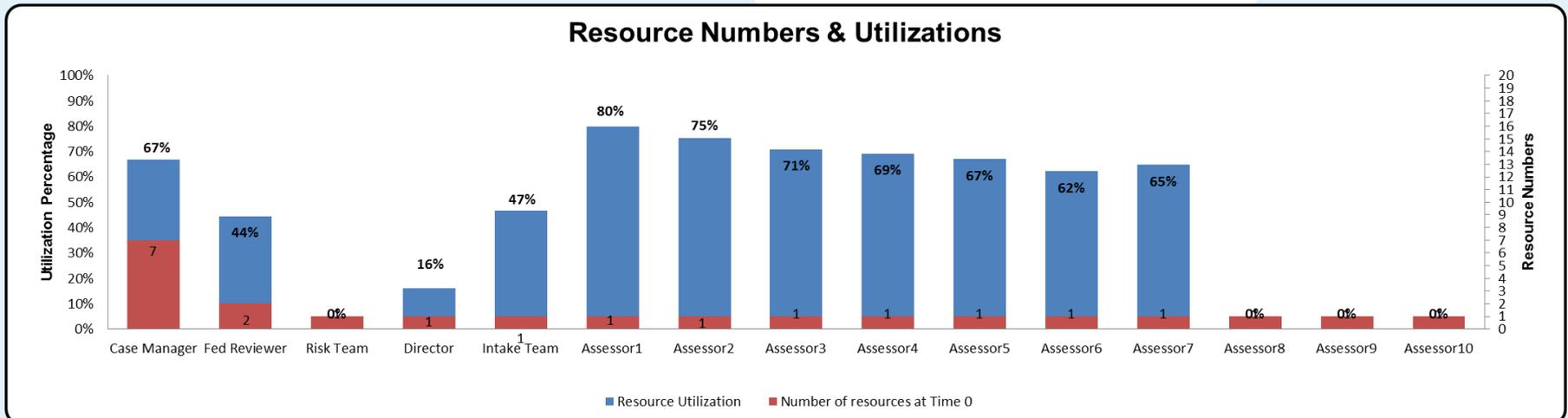
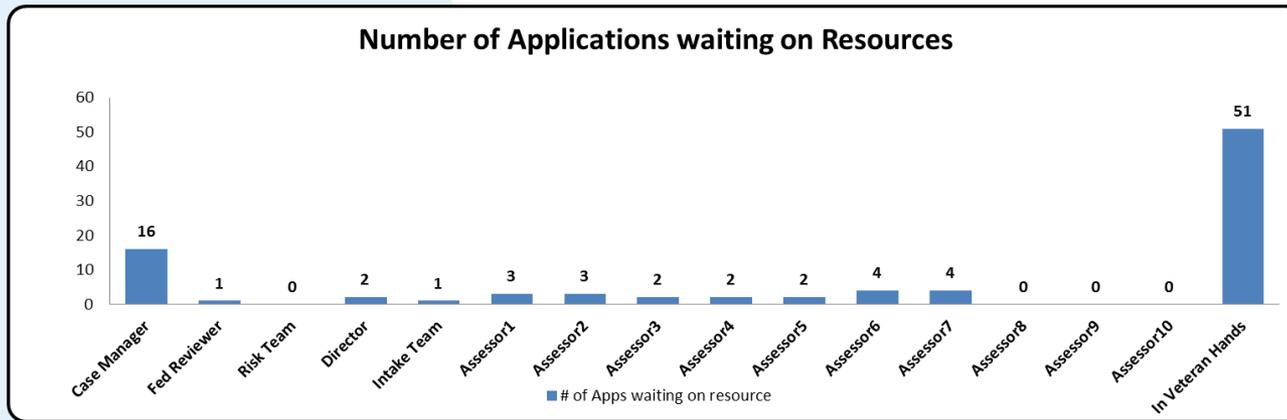
Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
1752	495	21	1075	1	9.2	17.1	3.7



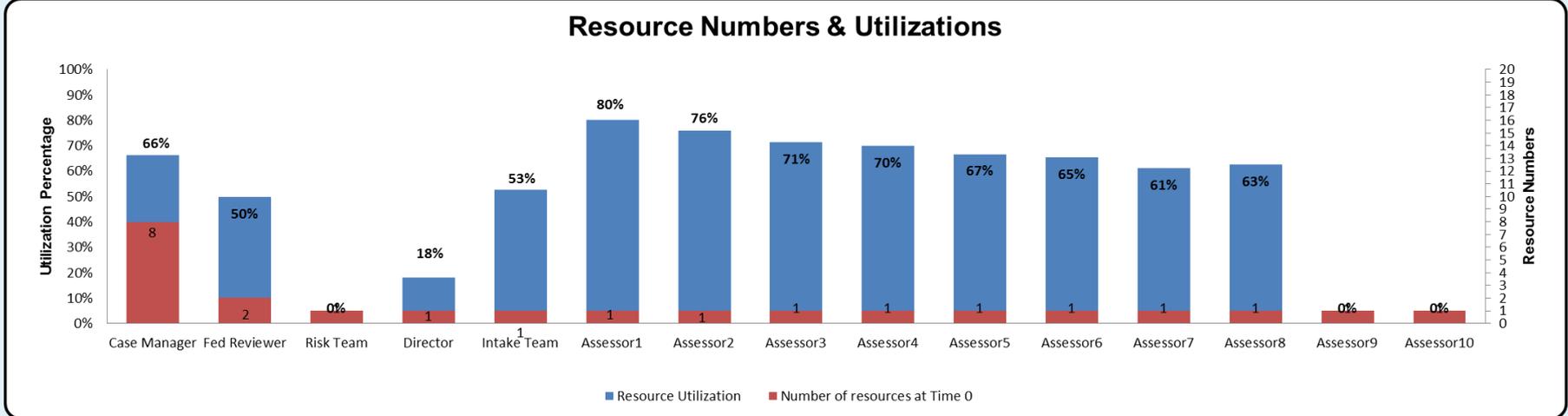
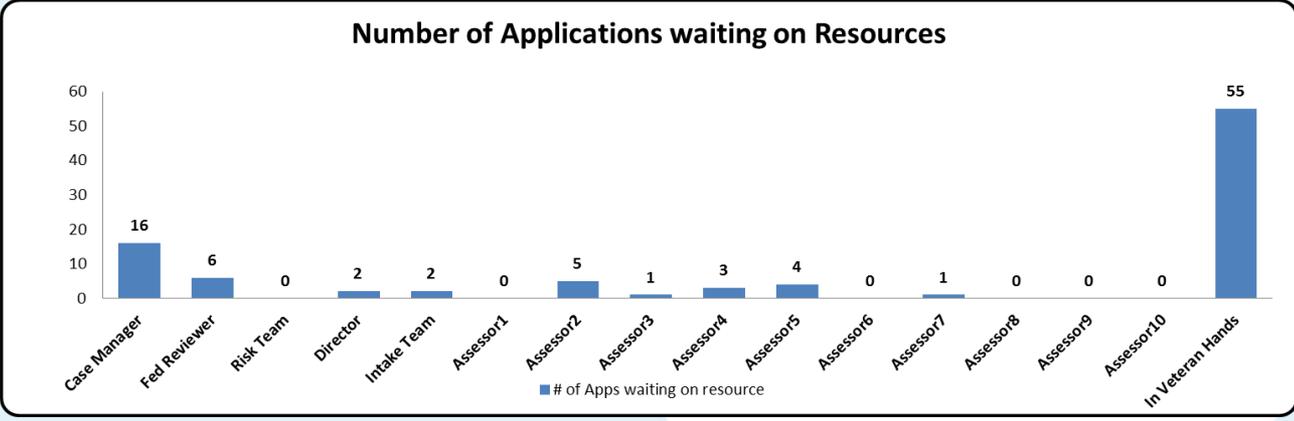
Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
2103	598	24	1272	0	8.7	16.7	3.4

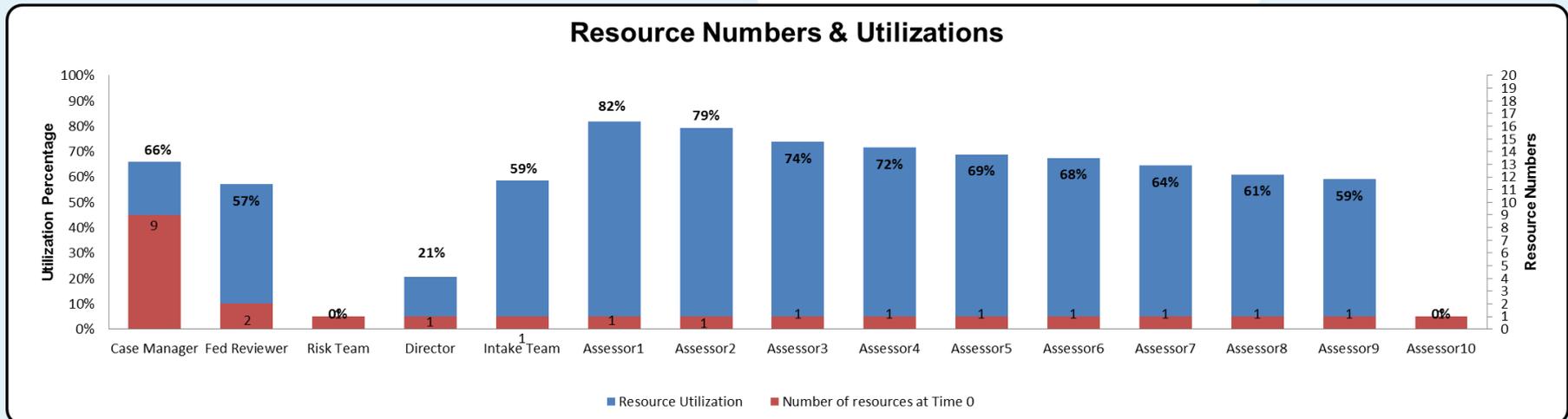
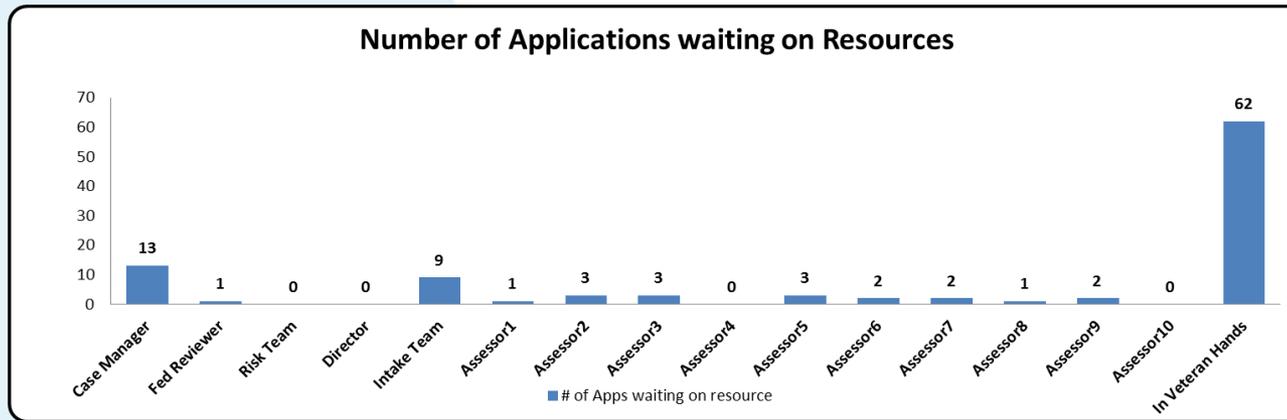
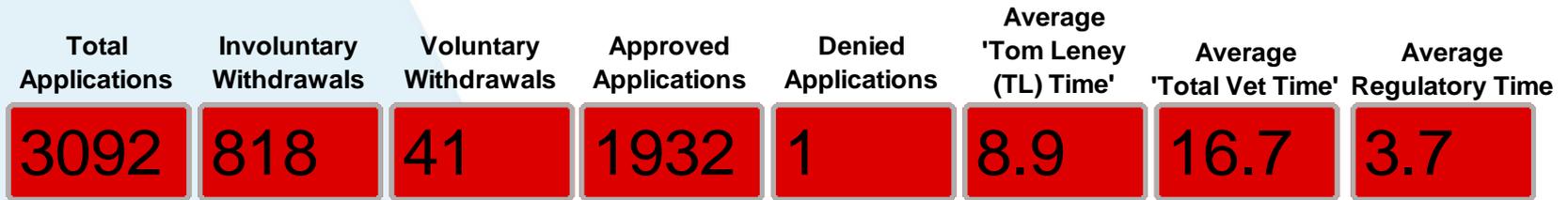


Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
2445	681	29	1492	3	9	16.9	3.6

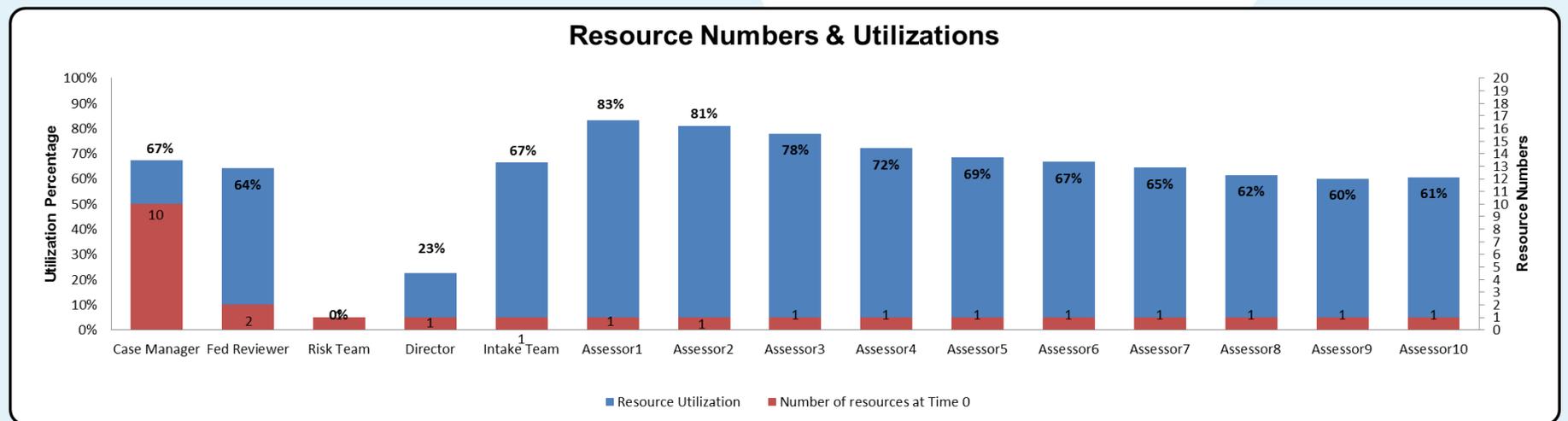
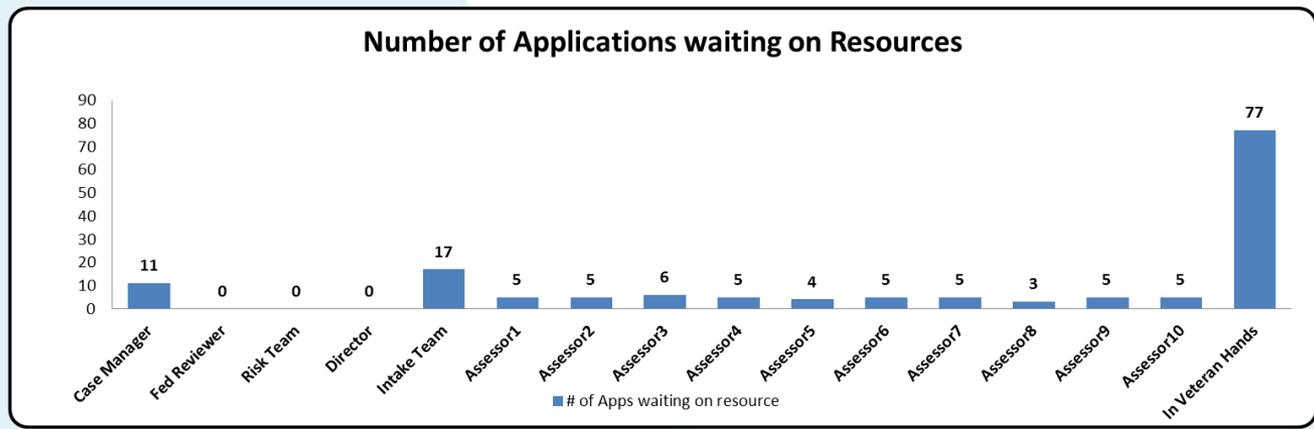


Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
2753	765	39	1690	0	8.6	16.4	3.4



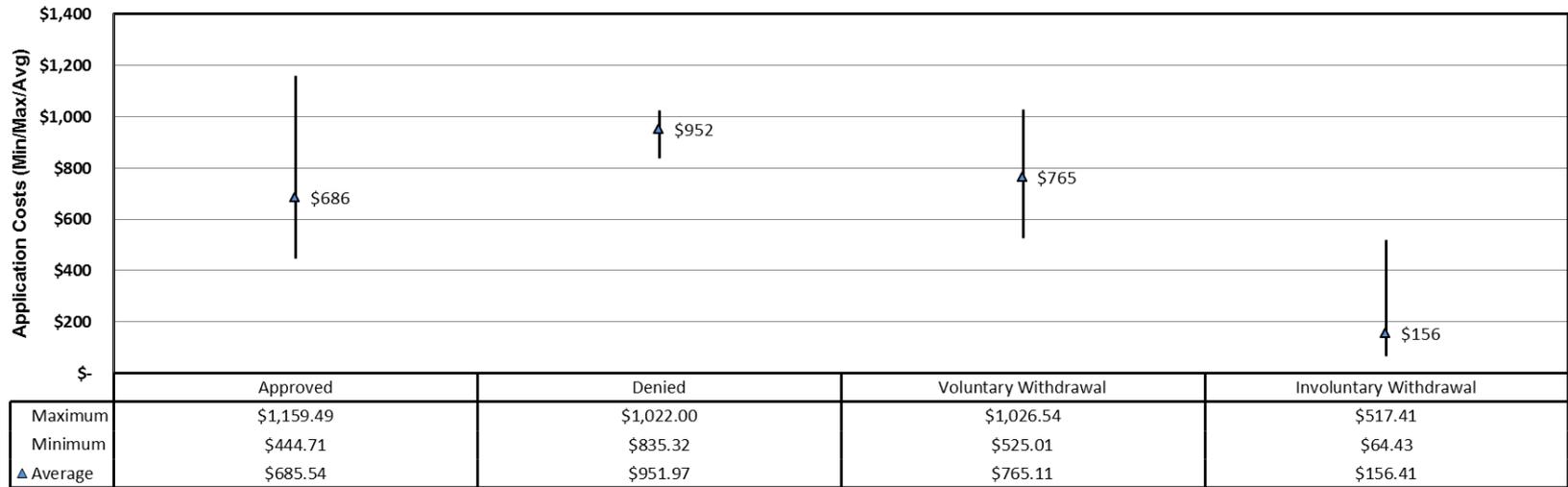


Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
3506	989	48	2137	4	9	16.7	3.7



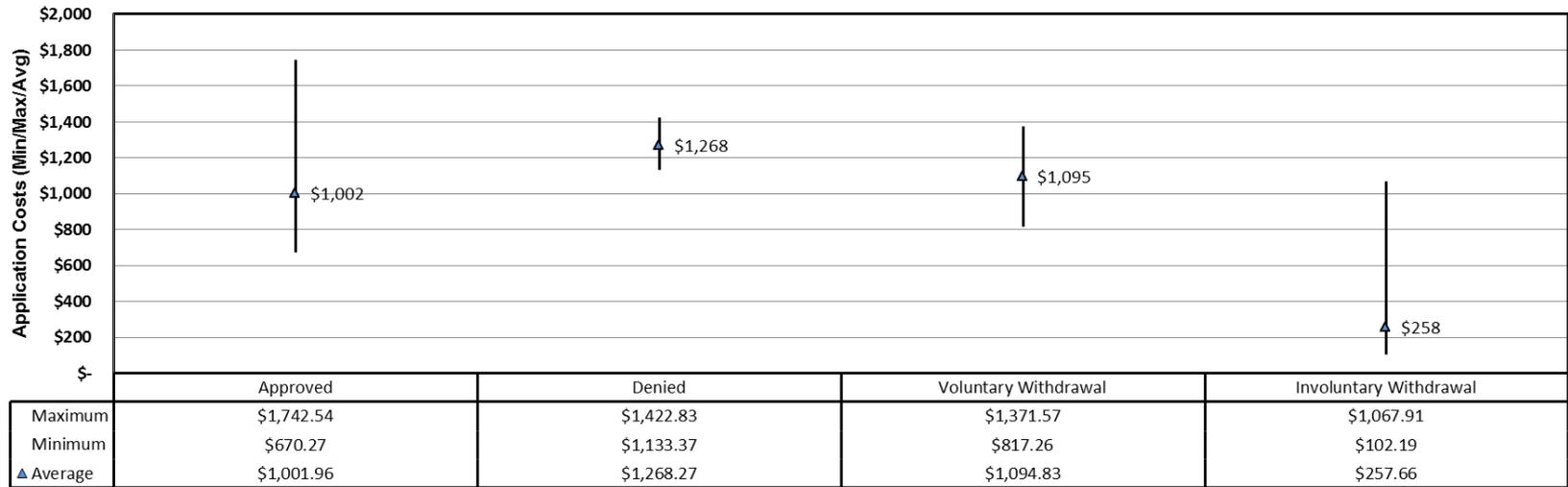
Labor Rate Scenario 1	
Assessor	\$54.60
Case Manager	\$36.40
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



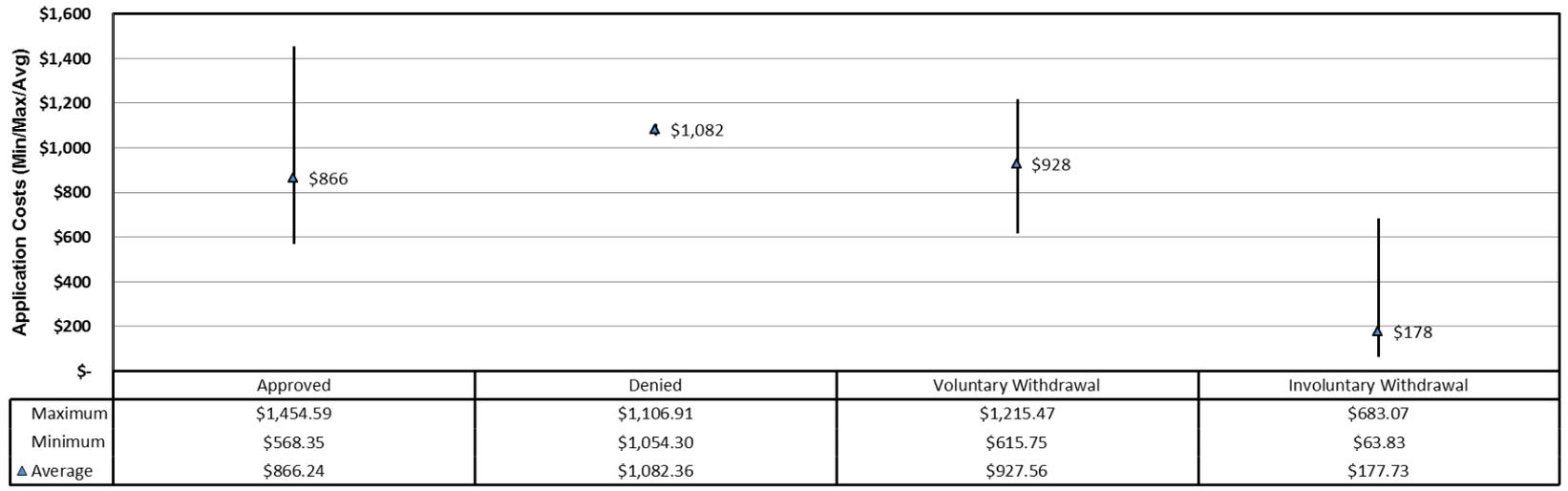
Labor Rate Scenario 2	
Assessor	\$81.90
Case Manager	\$63.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



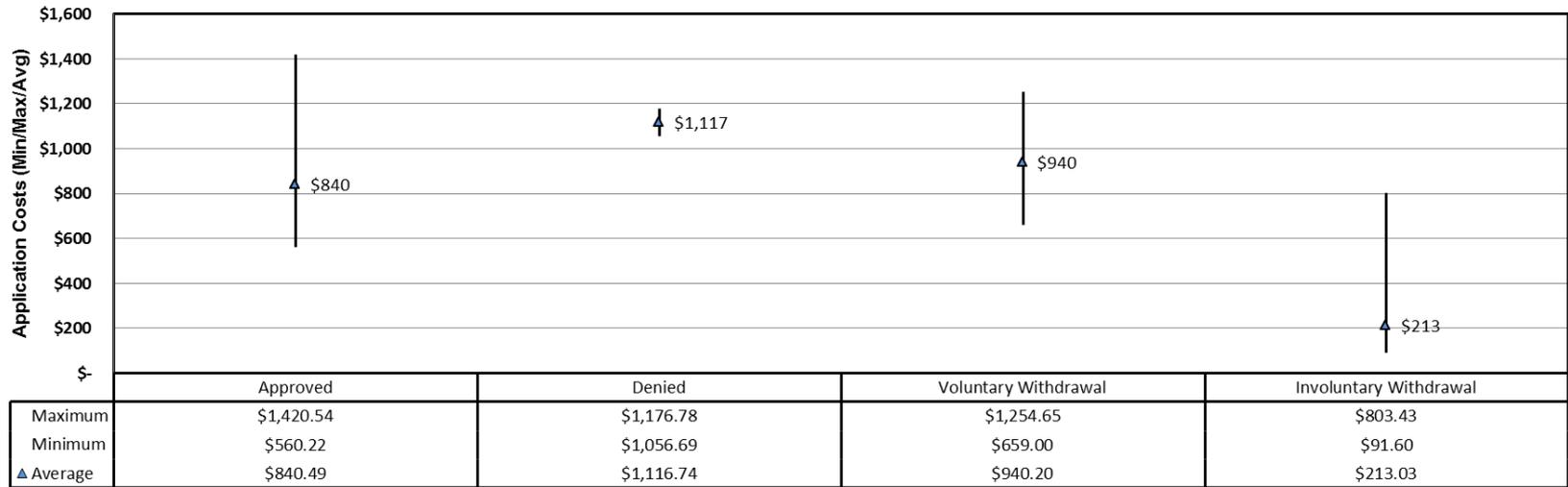
Labor Rate Scenario 3	
Assessor	\$81.90
Case Manager	\$36.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



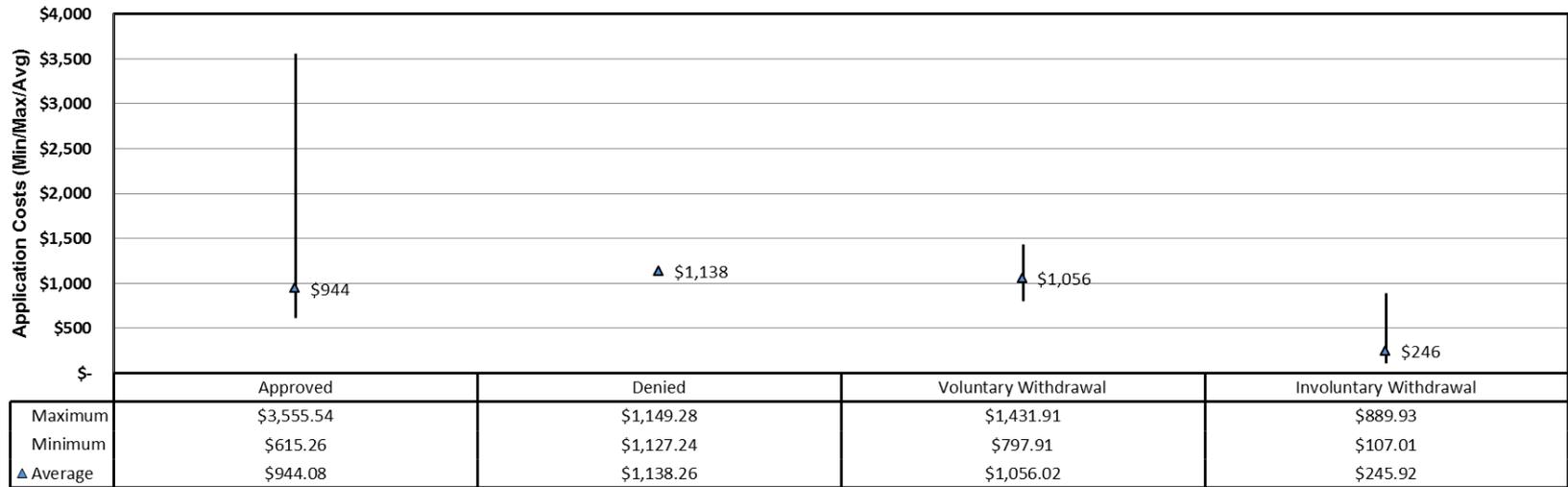
Labor Rate Scenario 4	
Assessor	\$63.70
Case Manager	\$54.60
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



Labor Rate Scenario 5	
Assessor	\$72.80
Case Manager	\$63.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



Focus Review Model

	Labor Rate Scenarios				
	1	2	3	4	5
Assessor	\$54.60	\$81.90	\$81.90	\$63.70	\$72.80
Case Manager	\$36.40	\$63.70	\$36.70	\$54.60	\$63.70
Intake Team	\$58.59	\$58.59	\$58.59	\$58.59	\$58.59
Fed Reviewer	\$62.22	\$62.22	\$62.22	\$62.22	\$62.22
	Annualized (2080 hours)				
Assessor	\$113,568.00	\$170,352.00	\$170,352.00	\$132,496.00	\$151,424.00
Case Manager	\$75,712.00	\$132,496.00	\$76,336.00	\$113,568.00	\$132,496.00
Intake Team	\$121,867.20	\$121,867.20	\$121,867.20	\$121,867.20	\$121,867.20
Fed Reviewer	\$129,417.60	\$129,417.60	\$129,417.60	\$129,417.60	\$129,417.60

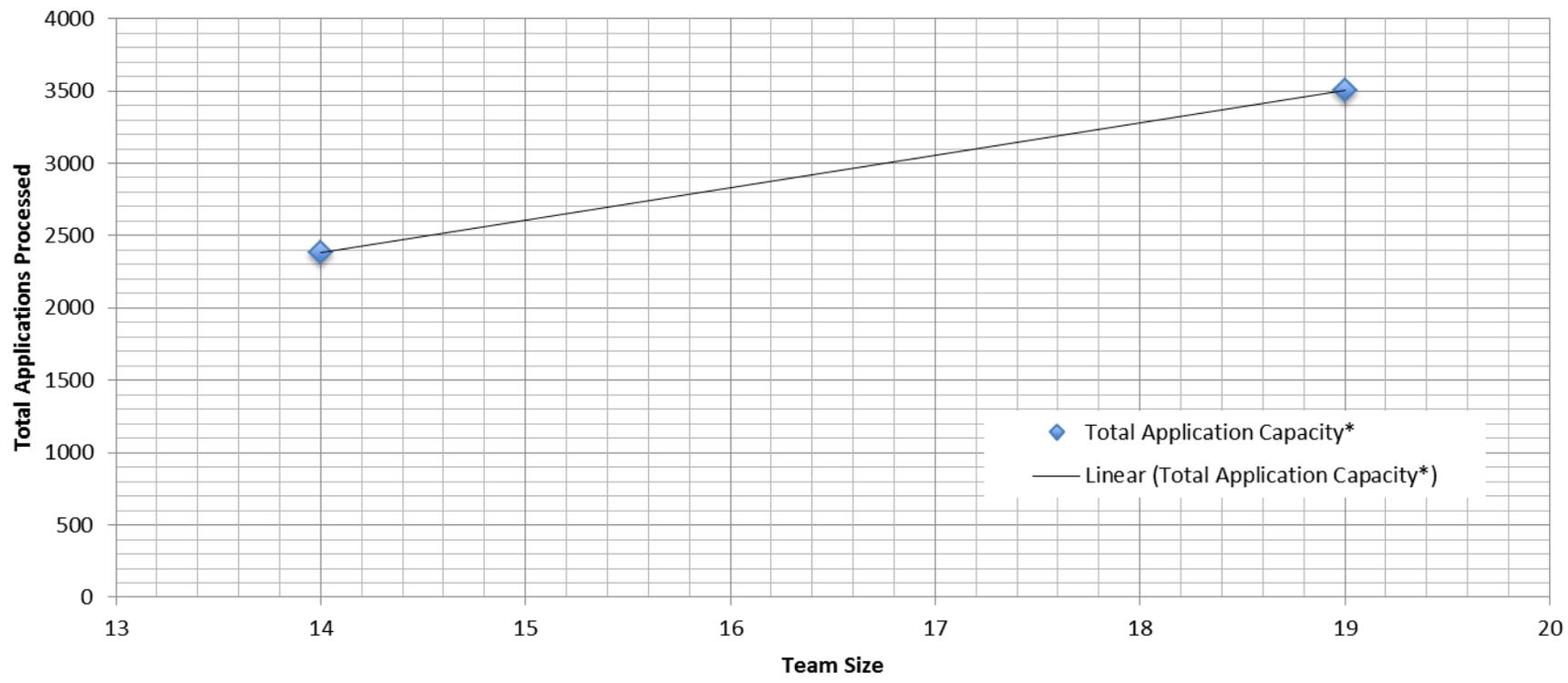
Focus Review Model Team Configuration		
Assessor	2	3
Case Manager	9	13
Intake Team	1	1
Fed Reviewer	2	2
Total Team Size	14	19
Total Application Capacity*	2386	3503
Total Cost by Labor Rate Scenarios		
1	\$1,289,246	\$1,705,662
2	\$1,913,870	\$2,614,206
3	\$1,408,430	\$1,884,126
4	\$1,667,806	\$2,254,574
5	\$1,876,014	\$2,557,422
Cost/Application	\$540.34	\$486.91

Focus Review Model Utilizations		
Assessors	71%	70%
Case Managers	69%	71%
Intake Team	25%	37%
Fed Reviewer(s)	43%	62%
Average Utilization	62%	68%

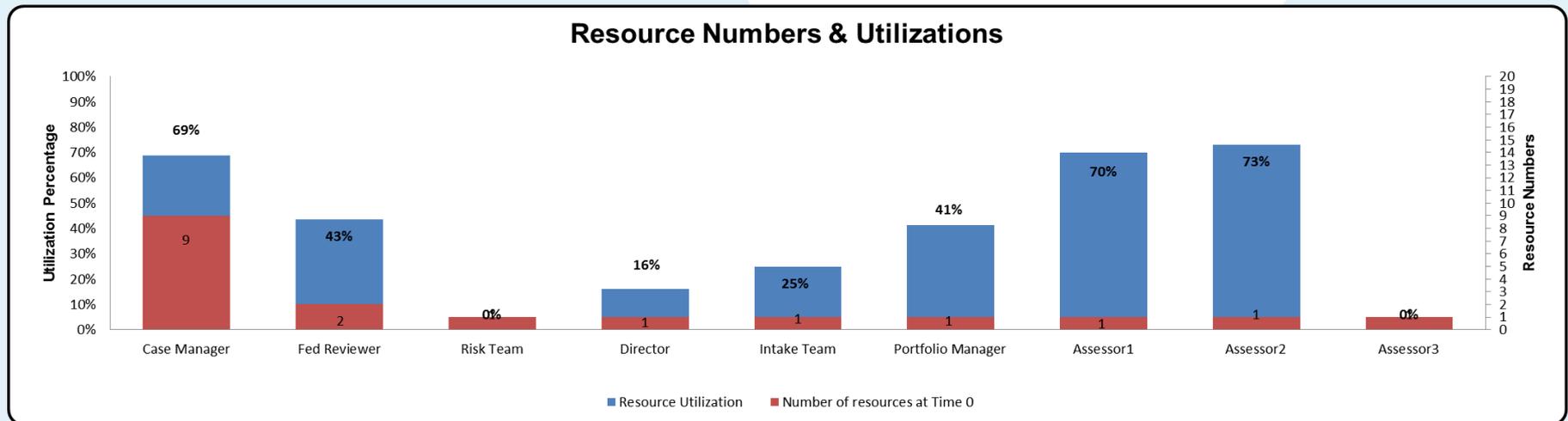
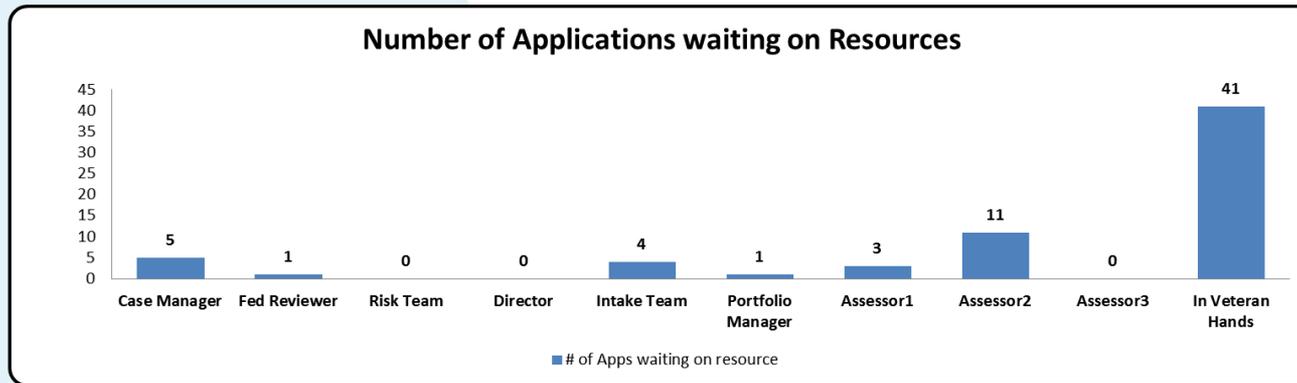
• Total Cost is based on resource rates multiplied by 2080 hours per year.

• The 1 Director, 1 Portfolio Manager, and 1 Risk Team are not included in the Team Size or Total Cost calculations, as they are constant for all scenarios.

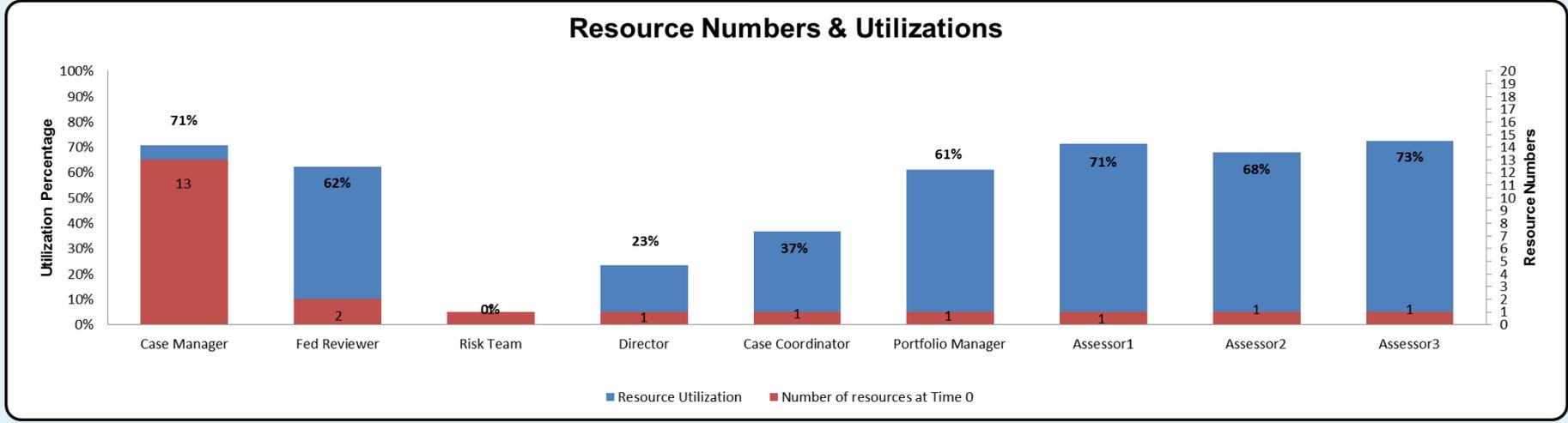
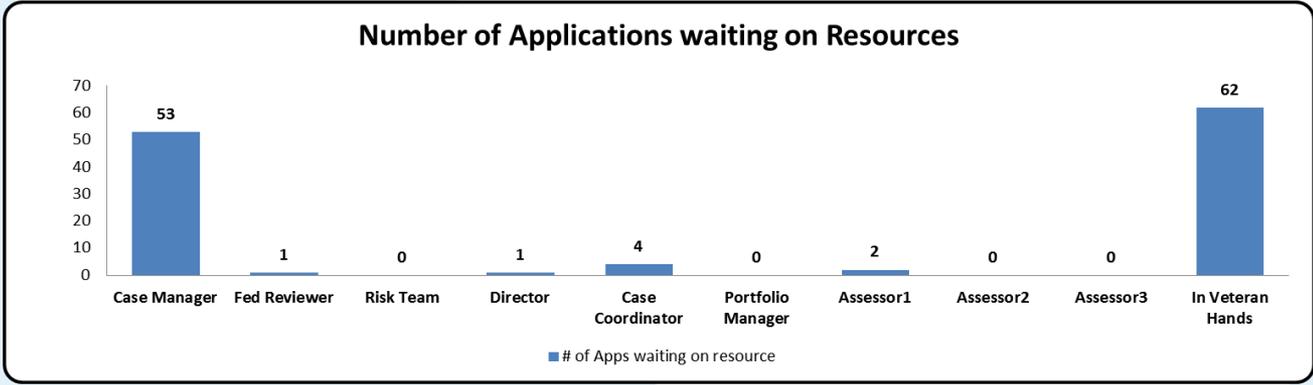
Total Apps Potentially Processed per Team Size, 8 hours



Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
2386	614	51	1478	2	6.9	15.4	3.8

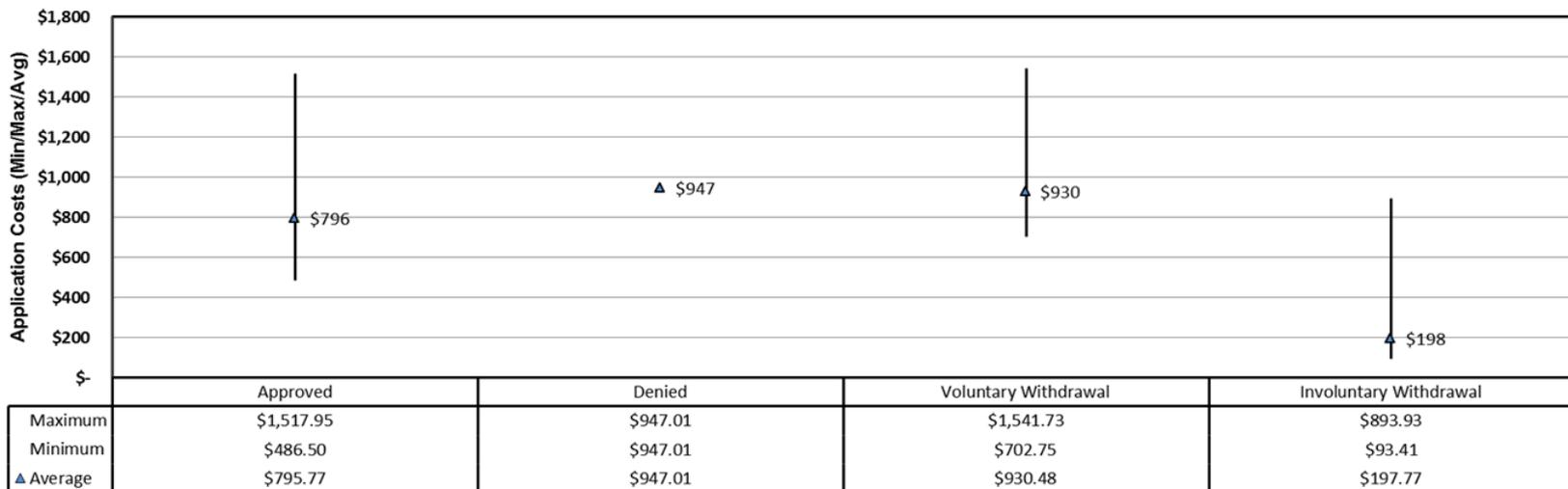


Total Applications	Involuntary Withdrawals	Voluntary Withdrawals	Approved Applications	Denied Applications	Average 'Tom Loney (TL) Time'	Average 'Total Vet Time'	Average Regulatory Time
3503	954	55	2179	2	7.2	15.9	3.9



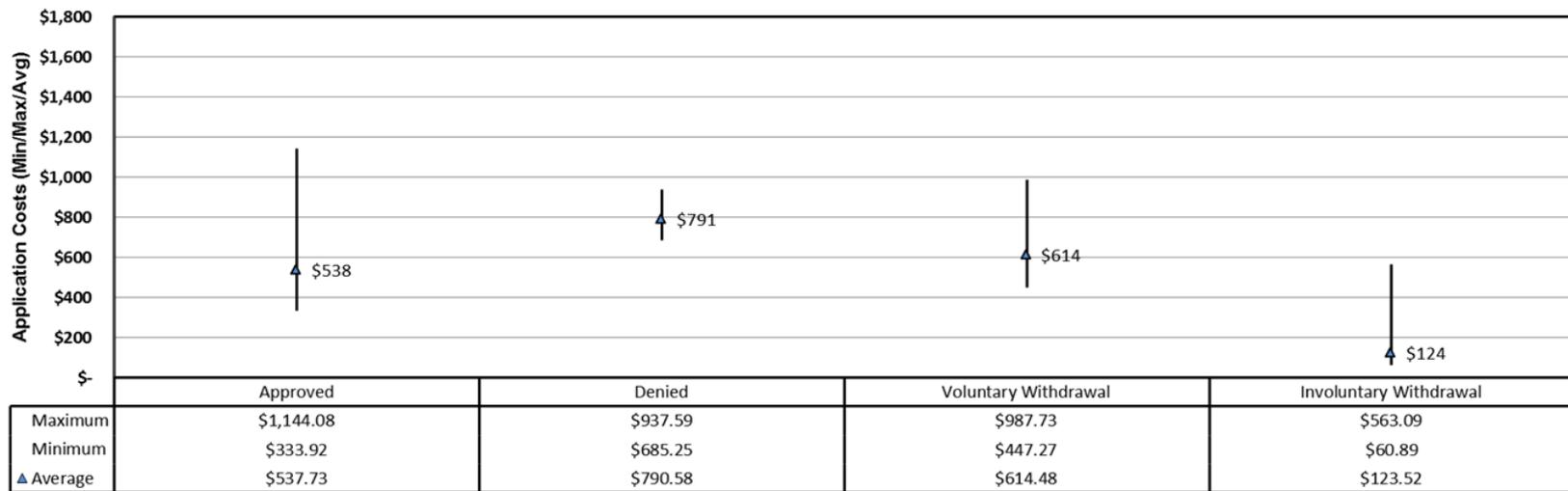
Labor Rate Scenario 2	
Assessor	\$81.90
Case Manager	\$63.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



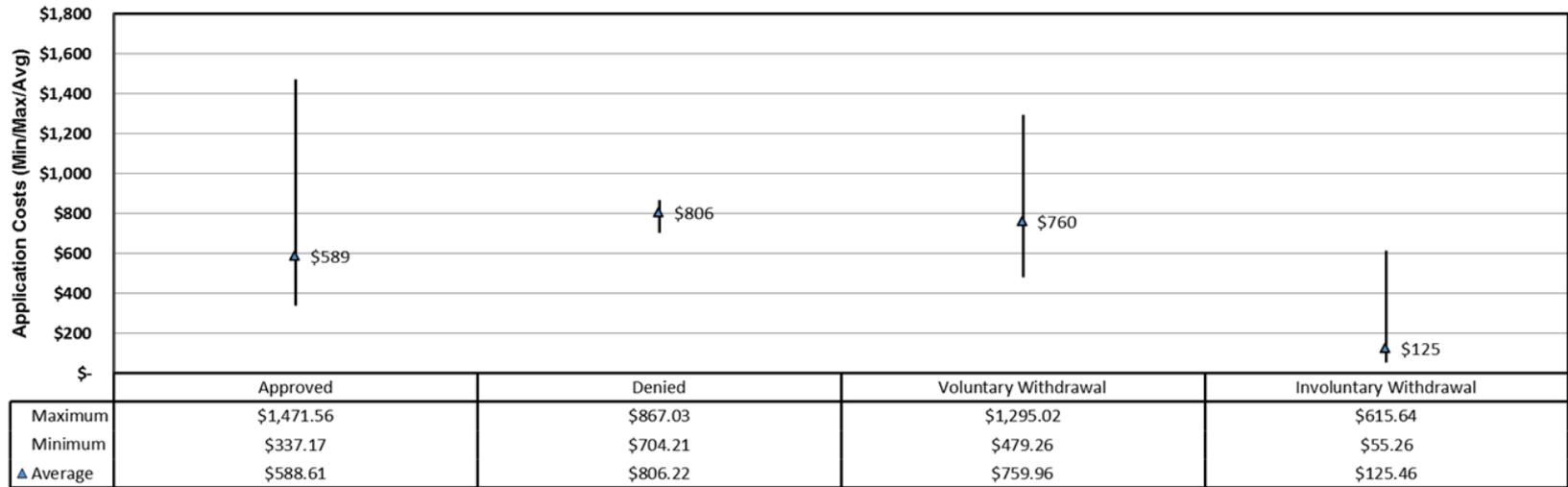
Labor Rate Scenario 1	
Assessor	\$54.60
Case Manager	\$36.40
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



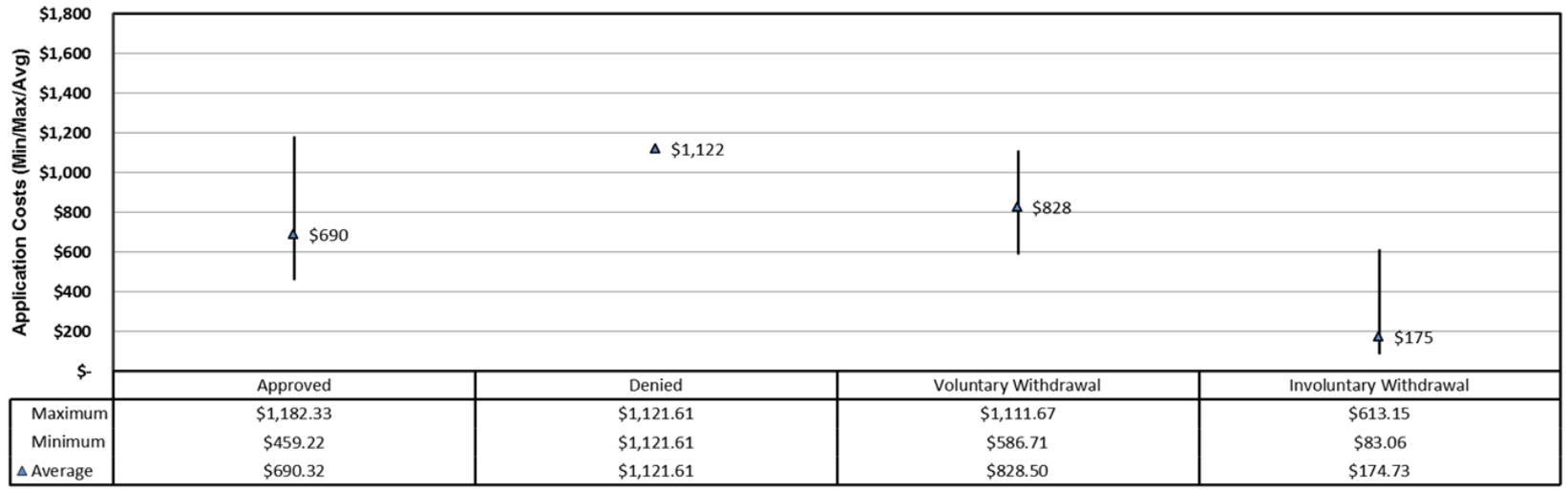
Labor Rate Scenario 3	
Assessor	\$81.90
Case Manager	\$36.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



Labor Rate Scenario 4	
Assessor	\$63.70
Case Manager	\$54.60
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status



Labor Rate Scenario 5	
Assessor	\$72.80
Case Manager	\$63.70
Intake Team	\$58.59
Fed Reviewer	\$62.22

Application Processing Costs by Status

