

## APPENDIX E

### DEFINING THE ADEQUACY OF INCENTIVES (AOI) GROUPS USING SURVEY AND ADMINISTRATIVE DATA

---

The TTW legislation identifies four groups of beneficiaries as likely to find it difficult to obtain services in the performance-based program environment. These groups, referred to as the adequacy of incentives (AOI) groups, are:

- Group 1: Individuals with a need for ongoing support services
- Group 2: Individuals with a need for high-cost accommodations
- Group 3: Individuals who earn a subminimum wage
- Group 4: Individuals who work and receive partial cash benefits

Thornton et al. (2004) as well as Stapleton and Livermore (2002) used SSA administrative data on the primary medical diagnosis as the preliminary means to develop a methodology that approximates the size of AOI groups 1 and 2. That approach was considered preliminary because a medical diagnosis is an imperfect indicator of both functional status and the need for technology and other services. With the availability of the NBS data, we can define the AOI groups based on information that allows us to more directly measure the need for ongoing supports and high-cost accommodations.

This appendix describes the survey-based definitions of each AOI group and compares the group 1 and 2 definitions to the definitions based on SSA administrative data. We focus on groups 1 and 2 for two reasons: because they represent the vast majority of AOI beneficiaries and because the SSA earnings data needed to construct the group 3 and 4 definitions for individual survey sample members are not available.<sup>1</sup>

---

<sup>1</sup> SSA and IRS policy does not allow us to merge their individual-level earnings data to the NBS.

## **A. SURVEY-BASED DEFINITIONS OF AOI GROUPS**

The NBS items used to define the AOI groups are shown in Table E.1. As defined, group 1 includes individuals who use supports that are likely to be ongoing (such as a job coach or help from another person at work) and individuals who are likely to need ongoing supports because of their functional status (indicated by very poor mental health, substance abuse, severe physical limitations, or the need for assistance with multiple ADLs). Group 2 includes individuals who use assistive technology and other accommodations and individuals likely to use assistive technology because of sensory impairments or limitations in their ability to get around at home and outside the home. Group 3 includes those whose wages are less than \$5.15 per hour, and group 4 includes those who work and receive partial benefits. Selected characteristics of Phase 1 AOI group members are shown in Table E.2.

## **B. COMPARING THE DEFINITIONS FOR GROUPS 1 AND 2 BASED ON SURVEY AND ADMINISTRATIVE DATA**

Nearly all beneficiaries classified into one of the four AOI groups (99 percent) are also part of the first two groups: those needing ongoing supports—group 1, and those requiring high-cost accommodations—group 2 (see Chapter XVI). In our last report (Thornton et al. 2006), we used primary diagnosis information from SSA administrative data to identify beneficiaries in groups 1 and 2. According to SSA’s disability determination process, the primary diagnosis represents the primary medical reason for SSI or DI eligibility. In contrast, the survey data used to define groups 1 and 2 are more direct indicators of functional status, which we believe to be a better way than the medical condition to classify beneficiaries into groups 1 and/or 2.

Both definitions indicate that a large majority of all beneficiaries fall into at least one of the two AOI groups. Based on the survey-based definition, 69 percent of beneficiaries are classified in at least one of the two groups, with 36 percent needing ongoing supports (group 1), 9 percent needing high-cost accommodations (group 2), and 25 percent needing both, i.e., meeting the criteria for both groups. Based on administrative data, 65 percent are in one of the two groups: 57 percent in group 1 and 8 percent in group 2 (Table E.3). In addition—and in contrast to the survey-based definition—the groups defined by administrative data are mutually exclusive, so beneficiaries cannot meet the criteria for both groups.

According to at least one of the two definitions, more than 87 percent of all beneficiaries are in AOI group 1 or 2, but only 47 percent of all beneficiaries are in group 1 or 2 under both definitions.<sup>2</sup> Many beneficiaries are in group 1 or 2 according to one definition but not the other. For example, 30 percent of beneficiaries who meet the criteria for group 1 as defined by administrative data do not meet the criteria for either group 1 or 2 as defined by the survey data. Similarly, 34 percent of beneficiaries identified as being in both groups as defined by the survey data are not so identified by the administrative data. Half of the beneficiaries in group 2 according to the administrative data are in both groups 1 and 2 according to the survey data (Table E.3).

---

<sup>2</sup> Authors’ calculations are based on data in Table E.3.

**Table E.1 AOI Group Inclusion Criteria and Percent of Beneficiaries Meeting Criteria**

AOI Group Components	Survey Variables Used to Construct Component	% All Beneficiaries	% All Phase 1 Beneficiaries
<b>Group 1—Need for Ongoing Support</b>			
Required assistance or proxy respondent to complete survey due to poor memory, confusion, not knowing how to answer, or other mental condition	M14_1=1 or m14_7=7 or m14_8=8	19.1	19.6
Lowest 10 <sup>th</sup> percentile of U.S. adult population for mental health composite summary (MCS score based on the SF-8)	0<=C_mcs8tot LE 36	16.6	17.5
Alcohol abuse based on CAGE index	CageScore_indicator_i eq 1	4.3	3.9
Other indicators of substance abuse	i66 = 1 or i67 = 1 or i73 = 1 or i74 = 1 or i75 = 1 or i76 =1	4.8	4.4
Needs assistance of another person such as interpreter or attendant	i24_7 = 7 or i28_3 = 3 or i32_5 = 5	4.3	4.2
Needs assistance of another person with at least three ADLs and/or IADLs	c_numadlassist_i + c_numiadlassist_i ge 3	26.2	26.5
At least three severe physical limitations	c_numsevphyylim_i ge 3	23.3	26.3
Received assistance from a person at work	c27 = 1 or c33_e = 1	4.1	4.8
Discussed goals with a job coach	(b38 =1 and (b39 = 4 or b42=4 or b45=4))	0.4	0.8
<b>Total AOI Group 1</b>		<b>60.2</b>	<b>62.7</b>
<b>AOI Group 2: Need for High-Cost Accommodations</b>			
Required assistance or proxy respondent to complete survey due to hearing or speech problem	m14_4=4 or m14_5=5	4.2	<b>4.7</b>
Use of assistive technology	i20_1 = 1 or i20_2 = 2 or i20_4 = 4 or i24_3 = 3 or i24_4 = 4 or i24_6 = 6 or i28_1 = 1 or i28_2 = 2	3.3	<b>3.3</b>
Severe sensory limitations	c_numsevsenlim_i ge 1	16.2	<b>18.0</b>
Use of mobility aids	i32_2 = 2 or i32_3 = 3 or i32_4 = 4 or i32_6 = 6 or i32_7 = 7	13.2	<b>14.6</b>

Table E.1 (continued)

AOI Group Components	Survey Variables Used to Construct Component	% All Beneficiaries	% All Phase 1 Beneficiaries
Difficulty getting around at AND outside the home, but doesn't need help from another person to get around	(i45_i = 1 AND i47_i = 1) AND (i46_i = 0 AND i48_i eq 0)	3.7	<b>3.8</b>
Current or former use of an accommodation	c33_a = 1 or c33_d = 1 or c23_3 = 3 or c23_4 = 4 or c23_5 = 5 or c37=1	2.6	<b>2.8</b>
Total AOI Group 2		33.6	<b>35.4</b>
<b>AOI Group 3: Earns a Subminimum Wage</b>			
Working at a wage of less than \$5.15 per hour	if C1 ge 1 and (0<C_MainCurJobHrPay_i <5.15 or 0<C_CurJob2HrPay < 5.15 or 0<C_CurJob3HrPay<5.15 or 0<C_CurJob4HrPay <5.15)	2.9	<b>3.3</b>
<b>AOI Group 4: Works and Receives Partial Cash Benefits</b>			
SSI or concurrent beneficiaries who work and receive benefits	SSI-only or concurrent beneficiary at interview and (k3>0 and (k4=1))	2.6	<b>2.4</b>

Source: 2004 National Beneficiary Survey.

Note: Sample sizes = 7,603 for all beneficiaries; 2,932 for all Phase 1 beneficiaries.

**Table E.2. Characteristics of Phase 1 AOI Group Members (AOI Status Defined by Survey-Based Criteria)**

Characteristic	All AOI	All Non-AOI	Group 1 Ongoing Support	Group 2 High-cost Accomm.	Group 3 Subminimum Wage	Group 4 Partial Benefits	Group 1 (not in group 2)	Group 2 (not in group 1)	Group 1 and 2
Number	1,862,389	722,656	1,621,722	914,011	84,113	61,635	930,270	222,559	691,452
Percent of Phase 1 Beneficiaries	72.0	28.0	62.7	35.4	3.3	2.4	36.0	8.6	26.7
TTW Participation Rate (%)	0.74	1.0	0.69	0.70	1.45	3.3	0.71	0.81	0.6
Title (%)									
SSDI-only	50.8	57.3	49.1	54.4	60.2	0.0	47.9	66.3	50.6
Concurrent	15.7	16.0	15.9	15.3	20.8	60.7	15.3	11.0	16.7
SSI-only	33.5	26.7	35.1	30.3	19.0	39.3	36.8	22.7	32.8
Mean Monthly Benefit (Federal + State \$)	764.57	829.09	755.76	799.04	741.10	546.96	736.9	854.5	781.2
Months Since Initial Award (%)									
<24	2.4	6.4	2.6	1.6	0.0	0.6	3.1	0.6	2.0
24 - 59	16.1	23.2	15.1	15.5	14.7	12.9	16.9	24.3	12.7
60 - 119	24.5	24.9	23.4	26.6	12.8	14.1	22.3	32.2	24.9
120+	57.0	45.6	58.9	56.2	72.5	72.4	57.7	42.9	60.5
Mean Months Since Initial Award	165.8	136.1	168.7	172.4	199.5	183.0	159.9	147.3	180.5
Childhood Disability Onset (%)	28.7	16.1	29.9	28.2	72.6	63.2	29.1	19.8	30.9
Age in Years (%)									
18 - 24	5.0	4.3	5.2	4.1	8.1	21.9	5.7	2.7	4.6
25 - 39	16.9	18.0	17.5	13.8	21.5	36.9	19.5	10.7	14.8
40 - 54	41.0	31.5	40.8	41.5	46.0	41.0	40.3	41.8	41.5
55 +	37.1	46.3	36.5	40.6	24.4	0.2	34.4	44.8	39.2
Mean Age (Years)	48.2	49.4	48.0	49.6	45.0	36.3	47.1	50.7	49.2
Sex (%)									
Male	49.5	47.7	49.6	50.4	71.9	65.2	48.5	48.2	51.1
Female	50.5	52.3	50.4	49.6	28.1	34.8	51.5	51.8	48.9
Race and Ethnicity (%)*									
White	70.4	67.9	69.7	72.7	85.7	69.9	68.1	74.9	72.0
Black or African-American	22.2	27.9	23.2	19.1	12.1	23.8	25.2	14.5	20.6
Other race	7.5	4.2	7.0	8.2	2.2	6.3	6.8	10.7	7.4
Hispanic or Latino	16.1	12.9	17.3	15.4	0.1	8.2	17.0	8.0	17.7
Parental Education > HS (%)	17.2	18.3	16.7	16.4	20.9	26.0	17.8	19.9	15.3

Table E.2 (continued)

Characteristic	All AOI	All Non-AOI	Group 1 Ongoing Support	Group 2 High-cost Accomm.	Group 3 Subminimum Wage	Group 4 Partial Benefits	Group 1 (not in group 2)	Group 2 (not in group 1)	Group 1 and 2
<b>Education (%)</b>									
Less than HS diploma	42.1	31.7	44.2	40.9	46.3	38.2	43.7	28.7	44.8
HS diploma	34.9	42.8	33.9	32.7	39.3	43.9	36.1	38.7	30.8
More than HS	23.1	25.5	21.9	26.4	14.3	17.9	20.1	32.6	24.4
<b>Marital Status and Living Arrangement (%)</b>									
Lives alone or with unrelated others	39.5	39.8	41.2	42.5	48.4	48.5	37.0	28.7	46.9
Lives with spouse or other relatives, no children	47.1	45.1	46.3	42.8	44.8	42.9	50.9	51.0	40.1
Lives with spouse and own children	6.7	7.3	6.3	7.6	5.8	2.0	6.0	10.5	6.6
Unmarried lives with own children	6.7	7.9	6.2	7.2	1.0	6.6	6.1	9.8	6.4
<b>Income as a Percent of Federal Poverty Level (%)</b>									
<100	52.7	46.3	54.3	51.2	33.1	54.1	54.4	41.6	54.3
100 - 299	34.8	40.5	33.2	35.6	51.7	35.1	33.7	45.3	32.5
300 +	12.5	13.2	12.5	13.2	15.2	10.8	11.9	13.1	13.3
<b>Self-Reported Reason(s) for Limitation (%)*</b>									
Mental illness	35.7	30.6	36.9	25.7	29.4	40.8	45.2	25.4	25.8
Mental retardation	10.6	1.7	12.0	9.9	23.7	24.9	11.5	1.3	12.7
Musculoskeletal	29.9	34.1	30.1	30.8	16.6	10.2	29.3	29.9	31.1
Sensory disorders	11.8	4.6	10.3	18.3	18.6	11.6	5.7	23.9	16.5
Other diseases of the nervous system	17.2	11.2	17.6	22.2	4.4	6.3	12.5	15.6	24.4
Other	61.1	64.6	60.9	68.0	50.1	51.7	54.3	62.3	69.8
No conditions limiting activities	3.6	8.2	3.5	2.0	10.7	10.5	4.9	3.4	1.6
Missing	1.0	1.7	1.2	0.3	6.7	4.1	1.8	0.2	0.3
<b>Obese</b>									
Obese	39.7	39.2	40.3	37.3	29.9	47.7	41.7	34.3	38.3
<b>Substance Abuse</b>									
Substance Abuse	8.8	0.0	10.1	4.0	5.3	11.2	13.7	0.0	5.3
<b>General Health</b>									
Excellent/very good	11.0	7.6	10.9	8.9	40.0	32.2	12.3	9.1	8.9
Good/fair	45.9	62.3	45.9	45.4	47.9	48.1	46.4	46.0	45.2
Poor/very poor	43.1	30.1	43.3	45.7	12.1	19.7	41.3	44.9	45.9
<b>Worked in 2003 (%)</b>									
Worked in 2003 (%)	14.1	12.1	13.5	13.8	91.9	82.0	13.1	12.9	14.1
<b>Working at Interview (%)</b>									
Working at Interview (%)	11.5	5.4	11.0	10.8	100.0	96.7	10.5	8.1	11.6
<b>Goals Include Work/Career Advancement (%)</b>									
Goals Include Work/Career Advancement (%)	30.7	36.1	31.0	27.4	46.1	63.4	33.3	25.9	27.9
<b>Sees Self Working for Pay (%)</b>									
In the next year	22.5	26.3	21.8	19.1	93.7	91.0	24.5	22.0	18.2
In the next five years	28.5	32.6	27.2	24.3	75.9	84.2	31.3	32.4	21.7

Table E.2 (continued)

Characteristic	All AOI	All Non-AOI	Group 1 Ongoing Support	Group 2 High-cost Accomm.	Group 3 Subminimum Wage	Group 4 Partial Benefits	Group 1 (not in group 2)	Group 2 (not in group 1)	Group 1 and 2
Sees Self Working Enough to Stop Disability Benefits									
In the next year	7.8	11.5	7.5	6.6	10.8	21.7	8.9	9.2	5.8
In the next five years	14.9	23.7	14.5	10.8	13.1	33.1	18.3	15.7	9.2

Source: 2004 National Beneficiary Survey.

Note: Sample size = 2,932 for all Phase 1 beneficiaries.

**Table E.3. AOI Group 1 and 2 Distributions Based on the Survey and Administrative Data Criteria**

AOI Group Based on Administrative Data	AOI Group Based on Survey Data				Total
	Not in AOI Group 1 or 2	Group 1 only	Group 2 only	In both Groups 1 and 2	
Not in AOI Group 1 or 2					
Number (weighted)	1,078,571	924,680	283,197	746,584	3,033,031
Row percent	36%	30%	9%	25%	100%
Column percent	40%	30%	36%	34%	35%
AOI Group 1					
Number (weighted)	1,498,405	2,119,210	351,659	1,058,502	5,027,775
Row percent	30%	42%	7%	21%	100%
Column percent	55%	68%	45%	49%	57%
AOI Group 2					
Number (weighted)	137,762	79,064	147,656	361,535	726,017
Row percent	19%	11%	20%	50%	100%
Column percent	5%	3%	19%	17%	8%
Total					
Number (weighted)	2,714,737	3,122,953	782,511	2,166,621	8,786,823
Row percent	31%	36%	9%	25%	100%
Column percent	100%	100%	100%	100%	100%

Source: 2004 National Beneficiary Survey matched to SSA administrative data. Sample size = 7,603.

Assuming that the survey-based definition is preferable and that it represents the “true” AOI status of beneficiaries, we calculated the sensitivity of the AOI definitions that are based on administrative data. The sensitivity measures the percentage of beneficiaries in each AOI group (as defined by the survey data) who are correctly identified as being in each group as defined by the administrative data. As shown in Table E.4, the administrative data perform only moderately well in terms of identifying individuals in group 1 (60 percent are correctly identified) and do somewhat better in terms of identifying individuals who are in one group or the other without distinguishing between the groups (68 percent are correctly identified). The administrative data perform particularly poorly in terms of identifying members of group 2 (only 17 percent are correctly identified).

**Table E.4. Sensitivity of the Administrative Data-Based Classifications**

AOI Group	Sensitivity
Group 1 (all)	0.60
Group 2 (all)	0.17
All in either group 1 or 2	0.68
All not in either group 1 or 2	0.40

Source: 2004 National Beneficiary Survey matched to SSA administrative data.

Note: Sample size = 7,603. The sensitivity is equal to the percentage in each AOI group based on the survey definition correctly identified using the administrative data-based definition ( true positives/(true positives + false negatives).



Table E.5 shows the degree to which the classification based on administrative data agrees with the classification based on survey data by primary diagnosis (as documented in the administrative data). Column C shows the AOI group to which a beneficiary is assigned by the primary diagnosis from the administrative data, if the primary diagnosis corresponds to an AOI group. Under the definition based on administrative data, all beneficiaries with a primary diagnosis assigned to one of the two AOI groups are classified as being in those groups. The percentage of beneficiaries with a given primary diagnosis who would be in group 1 and/or 2 based on the survey data is shown in columns E through H. The findings indicate that there is considerable variation across primary diagnoses in the degree to which the two definitions concur. For example, according to the administrative data, all beneficiaries with a fracture of the vertebral column and spinal cord injury (ICD 806) are in group 2. Similarly, 93 percent of beneficiaries with that primary diagnosis are in group 2 as defined by the survey data. In contrast, only 46 percent of beneficiaries with a primary diagnosis of epilepsy (ICD 345), which falls into group 1 under the administrative data-based definition, meet the survey criteria for either group 1 or 2.

In addition to epilepsy, several other diagnoses appear to be categorized incorrectly according to the administrative data. Physiological malfunction arising from mental factors (ICD 306), unspecified mental retardation (ICD 319), and osteoarthritis and allied disorders (ICD 715) are categorized as group 1, while inflammatory and toxic neuropathy (ICD 357) are categorized as group 2. However, fewer than 65 percent of beneficiaries with each of these primary diagnoses would fall into either group as defined by the survey data (Table E.5).

The definitions based on administrative data also exclude several diagnoses—common to over 80 percent of beneficiaries—from one or both groups that would otherwise be included were the groups defined by survey data. These diagnoses include obesity and other hyperalimentation (ICD 278), specific delays in development (ICD 315), other retinal disorders (ICD 362), heart failure (ICD 428), other peripheral vascular disease (ICD 443), and spina bifida (ICD 741).

**Table E.5. Survey-Based AOI Group Assignment by Primary Diagnosis**

(A) Primary Diagnosis	(B) Description	(C) Admin Data AOI Group	(D) % Beneficiary Population	Percent of Beneficiaries in Each Survey-Based AOI Group			
				(E) Survey Group 1 only	(F) Survey Group 2 only	(G) Survey Group 1 and 2	(H) Survey Group 1, 2, or both
Total			100%	36%	9%	25%	69%
<b>Mental Illness</b>			<b>27.5%</b>	<b>46</b>	<b>7%</b>	<b>16%</b>	<b>69%</b>
296	Affective psychoses	1	13.1	47	7%	16	70
295	Schizophrenic disorders	1	6.9	49	6%	12	67
294	Other organic psychotic conditions (chronic)	1	3.4	38	5%	25	68
300	Neurotic disorders	1	2.5	45	10%	17	71
301	Personality disorders	1	0.9	41	15%	11	67
306	Physiological malfunction arising from mental factors	1	0.2	30	0%	30	60
299	Psychoses with origin specific to childhood	1	0.2	55	3%	29	87
310*	Nonpsychotic mental disorders due to organic brain damage		0.1	51	49%	0	100
314	Hyperkinetic syndrome of childhood		0.1	52	0%	0	52
	Other mental illness (290*, 292*, 303*, 304*, 307*, 309*, 312*, 313*)		0.2	84	8	0	91
<b>Musculoskeletal System and Connective tissue</b>			<b>19.7%</b>	<b>34%</b>	<b>10%</b>	<b>23</b>	<b>66</b>
724	Other and unspecified disorders of back	1	8.3	38	10	18	66
715	Osteoarthritis and allied disorders	1	4.0	36	8	20	63
	Rheumatoid arthritis and other inflammatory polyarthropathies		1.7	40	12	24	76
714	Disorders of muscle, ligament, and fascia-		1.1	45	18	13	76
728	Fracture of vertebral column with spinal cord injury	2	0.7	4	5	88	97
806	Late effects of musculoskeletal and connective tissue injuries	2	0.7	4	36	38	78
905	Other disorders of bone and cartilage		0.6	23	7	23	53
733	Other, multiple, and ill-defined fractures of lower limb		0.6	27	1	24	52
827	Diffuse diseases of connective tissue		0.6	30	2	20	52
710	Other musculoskeletal/connective tissue disorders (716*, 719*, 720*, 722*, 730*, 737*, 754*, 756*, 818*, 828*, 829*, 834*, 839*, 844*, 848*, 879*, 884, 894*, 897*)		1.40	25	3	30	58

Table E.5 (continued)

(A) Primary Diagnosis	(B) Description	(C) Admin Data AOI Group	(D) % Beneficiary Population	Percent of Beneficiaries in Each Survey-Based AOI Group			
				(E) Survey Group 1 only	(F) Survey Group 2 only	(G) Survey Group 1 and 2	(H) Survey Group 1, 2, or both
<b>Mental Retardation</b>			<b>13.6%</b>	<b>46%</b>	<b>5%</b>	<b>27%</b>	<b>78%</b>
318	Other specified mental retardation	1	12.4	46	5	28	79
319	Unspecified mental retardation	1	0.6	26	4	13	42
317	Mild mental retardation	1	0.5	55	5	16	76
315	Specific delays in development		0.1	70	0	14	84
<b>Circulatory System</b>			<b>8.4%</b>	<b>24%</b>	<b>9%</b>	<b>22%</b>	<b>54%</b>
414	Other forms of chronic ischemic heart disease		2.7	19	9	13	42
438	Late effects of cerebrovascular disease	2	1.8	16	11	44%	72
425	Cardiomyopathy		0.7	24	13	12%	49
401	Essential hypertension		0.5	15	0	35%	50
443	Other peripheral vascular disease		0.5	40	15	27%	83
402	Hypertensive heart disease		0.5	49	0	22%	71
428	Heart failure		0.4	32	16	36%	84
459	Other disorders of circulatory system		0.3	16	4	6%	26
410*	Acute myocardial infarction		0.2	45	0	0%	45
	Other circulatory system disorders (391*, 395*, 396*, 398*, 411*, 413*, 416*, 424*, 427*, 430*, 431*, 434*, 441*, 446*, 448*, 451*, 454*)		0.8	31	0	0	31
<b>Nervous System</b>			<b>5.9%</b>	<b>21%</b>	<b>9%</b>	<b>44%</b>	<b>74%</b>
340	Multiple sclerosis	1	1.1	12	14	52	78
343	Infantile cerebral palsy	1	1.1	15	5	57	77
907	Late effects of injuries to the nervous system	1	0.8	28	17	35	81
345	Epilepsy	1	0.7	30	0	16	46
349	Other and unspecified disorders of the nervous system		0.4	27	8	36	71
336	Other diseases of spinal cord	2	0.4	9	16	67	92
359	Muscular dystrophies and other myopathies	2	0.3	23	6	64	92
357	Inflammatory and toxic neuropathy	2	0.3	9	27	27	63
346	Migraine-classical migraine		0.3	43	0	22	65
331	Other cerebral degenerations	2	0.2	12	4	66	82
358*	Myoneural disorders	1	0.1	51	0	18	69

Table E.5 (continued)

(A) Primary Diagnosis	(B) Description	(C) Admin Data AOI Group	(D) % Beneficiary Population	Percent of Beneficiaries in Each Survey-Based AOI Group			
				(E) Survey Group 1 only	(F) Survey Group 2 only	(G) Survey Group 1 and 2	(H) Survey Group 1, 2, or both
337*	Disorders of the autonomic nervous system		0.0	0	27	30	57
335*	Anterior horn cell disease	2	0.0	0	0	100	100
	Other nervous system disorders (329*, 330*, 332*, , 337*, 342*, 344*, 347*, 348*, 350*, 356*)		0.10	19	5	46	71
<b>Sensory</b>			<b>3.8%</b>	<b>10%</b>	<b>28%</b>	<b>44%</b>	<b>82%</b>
369	Blindness and low vision	2	1.8	6	31	40	78
389	Hearing loss	2	0.7	7	22	69	98
362	Other retinal disorders		0.3	21	37	34	91
368	Visual disturbances	2	0.3	31	24	12	66
365	Glaucoma	2	0.2	0	44	56	100
366*	Cataract	2	0.2	5	24	37	65
386*	Vertiginous syndromes and other vestibular disorders	2	0.1	7	0	39	46
361*	Retinal detachments and defects	2	0.1	0	66	34	100
	Other Sensory impairments (367*, 374*, 375*, 378*, 388*)		0.1	28	0	59	87
<b>Endocrine, Nutritional and Metabolic Diseases</b>			<b>4.0%</b>	<b>34%</b>	<b>10%</b>	<b>26%</b>	<b>70%</b>
278	Obesity and other hyperalimentation		2.4	41	9	33	83
250	Diabetes mellitus		1.0	19	14	16	49
282	Hereditary hemolytic anemias		0.2	7	0	13	19
246*	Other disorders of thyroid		0.1	100	0	0	100
281*	Other deficiency anemias		0.1	89	0	0	89
274*	Gout		0.1	25	0	75	100
277*	Other and unspecified disorders of metabolism		0.1	28	0	11	39
279*	Disorders involving the immune mechanism		0.0	60	11	0	71
289*	Other diseases of blood and blood-forming organs		0.0	0	0	0	0
	Other Endocrine, nutritional and metabolic diseases (263*, 270*, 276*, 284*, 286*)		0.1	44	19	12	75

Table E.5 (continued)

(A) Primary Diagnosis	(B) Description	(C) Admin Data AOI Group	(D) % Beneficiary Population	Percent of Beneficiaries in Each Survey-Based AOI Group			
				(E) Survey Group 1 only	(F) Survey Group 2 only	(G) Survey Group 1 and 2	(H) Survey Group 1, 2, or both
<b>Respiratory System</b>			<b>3.0%</b>	<b>24%</b>	<b>10%</b>	<b>25%</b>	<b>58%</b>
496	Chronic airway obstruction, not elsewhere classified		1.9	16	11	27	53
493	Asthma		0.8	42	12	22	76
519*	Other diseases of respiratory system		0.1	12	0	41	53
492*	Emphysema		0.1	48	0	0	48
	Other Respiratory system disorders (494*, 505*)		0.1	0	0	0	0
<b>Genitourinary System</b>			<b>2.5%</b>	<b>31%</b>	<b>12%</b>	<b>14%</b>	<b>57%</b>
585	Chronic renal failure		1.3	20	13	20	54
571	Chronic liver disease and cirrhosis		0.4	43	8	5	56
555	Regional enteritis		0.3	69	5	6	80
569	Other disorders of intestine		0.2	51	12	0	63
	Other Genitourinary disorders (553*, 556*, 558*, 573*, 581*, 583*, 620*)		0.2	14	17	14	45
<b>Neoplasms</b>			<b>2.2%</b>	<b>21</b>	<b>13%</b>	<b>28%</b>	<b>62%</b>
	All (141*, 150*, 153*, 154*, 155*, 157*, 162*, 163*, 170*, 172*, 173*, 174, 179*, 183*, 184*, 185*, 186*, 188*, 189*, 191, 194*, 195*, 198*, 200*, 202*, 207*, 217*, 225*, 229*)		2.20	12	21	42	75
<b>Infectious and Parasitic Diseases</b>			<b>2.6%</b>	<b>31%</b>	<b>12%</b>	<b>31%</b>	<b>74%</b>
43	Human immunodeficiency virus [HIV] disease		0.7	35	6	19	60
138	Late effects of acute poliomyelitis	2	0.5	17	17	58	93
136*	Other and unspecified infectious and parasitic diseases		0.2	39	17	39	94
	Other infectious and parasitic diseases (1, 7*, 31*, 38*, 42*, 44*, 94*, 135*)		1.2	32	13	26	70
<b>Congenital Anomalies</b>			<b>0.4%</b>	<b>25%</b>	<b>7%</b>	<b>58%</b>	<b>90%</b>
741	Spina bifida		0.2	0	13	87	100
758	Chromosomal anomalies	1	0.1	40	4	53	96
	Other congenital anomalies (742*, 746*, 759*, 760*)		0.1	47	0	12	60

Table E.5 (continued)

(A) Primary Diagnosis	(B) Description	(C) Admin Data AOI Group	(D) % Beneficiary Population	Percent of Beneficiaries in Each Survey-Based AOI Group			
				(E) Survey Group 1 only	(F) Survey Group 2 only	(G) Survey Group 1 and 2	(H) Survey Group 1, 2, or both
<b>Other</b>			<b>1.6%</b>	<b>32%</b>	<b>4%</b>	<b>40%</b>	<b>76%</b>
	Nonspecific or ill defined conditions (780*, 783*, 784, 789*, 791, 792*, 793, 869*)		1.2	25	0	53	78
	Intercranial injury (852*, 854)		0.2	25	0	53	78
	Skin and Subcutaneous Tissue (694-696*, 705*, 709*)		0.2	42	0	0	42

Source: 2004 National Beneficiary Survey matched to SSA administrative data.

Note: Sample size = 7,603. Table excludes observations with missing or invalid ICD codes.

\* Indicates that fewer than ten survey respondents have this primary diagnosis.