Impact of the Closure of Selected Department of Human Services Facility, 2012

Report to the Illinois Department of Human Services

Submitted by

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Executive Summary

This report analyzes the current economic impact of the selected DHS facility on their respective regional economies (individual counties or aggregations of counties for metropolitan areas) in terms of employment income and production (the value of goods and services produced) as well as state income and sales taxes. An expanded input-output model, that captures the direct as well as the indirect and induced effects of any activity, was employed for this purpose. Table ES1 shows a summary of the estimated impacts of the facility on the state's economy.

Table ES1: Summary Total Impacts of Selected Facility Murray Development Center

Employment	826
Income	$52 m
Production	$63 m
State income taxes	$0.3 m
State sales taxes	$0.6 m

To put these numbers in perspective, if the selected facility were to be closed the total impact on the state's economy (direct, indirect and induced) would be equivalent to approximately 13% of the jobs increase in the state in the month of April, 2012. However, the magnitude of the economic impact would vary depending upon the size of the communities involved, accessibility to alternatives (in terms of both jobs and care) and the expected growth of other parts of the local economies in which the facilities are located.

Not considered in the analysis are (1) the impacts of funds provided to the communities for alternative care facilities, (2) the degree to which those employed in the facilities will remain within the local economies and seek alternative jobs and (3) any anticipated re-use of the facilities that may generate additional employment opportunities.

Glossary of Terms

To assist the reader in the interpretation of the results, a brief introduction to impact analysis and a glossary of terms is provided in this section.

Linkages

A regional economy like the one characterizing the Chicago Metropolitan area has several important features. First, sectors in a metropolitan economy are linked – some directly, others indirectly. For example, a sector producing automobile parts that are shipped to the final assembly line would represent a ***direct linkage*** between two sectors. Assume the automobile component supplier purchases some fabricated metals products from another supplier; this too represents a direct linkage. However, the fabricated metals producer has an ***indirect linkage*** to the automobile assembly producer. Although not directly dependent on automobile production, the fabricated metal producer is clearly indirectly dependent on the production levels of the assembler. Hence, while many sectors of the economy are linked directly, many if not more are linked indirectly. In short, no one is independent in the economic system.

Ripple or Multiplier Effects

Consider the case just reviewed; assume automobile production increases. Now, the assembler will require more components: this will generate a direct effect – and a column in the tables in this report will indicate the size and sectoral composition of these direct effects. But we know that the impacts will not stop here; the component supplier will purchase more fabricated metal products, the fabricated metal producer will buy more steel, the steel producer will buy more iron ore or scrap and so forth. What we have described here are the multiple levels of the ripple effect – a direct change in one sector leads to expansion in other sectors of the economy. These sector-to-sector effects are referred to as ***indirect effects*** – and these too are shown in the summary tables.

During this whole process, firms need to purchase not only components and materials from other sectors, but they also have to pay wages and salaries to their employees. In turn, these employees will generate their own ripple effect. For example, an assembly line worker will use the extra income earned from overtime (assumed to occur to meet the additional demand) to take his/her

family to dinner. Part of this expenditure becomes income to the waiter; he spends the money at the dry cleaners and part of that expenditure is used by the owners of the dry cleaning business to buy lumber to renovate their house. Part of this expenditure will be used by employees in the lumber yard to enjoy an evening at the cinema – and so the process continues until the impact diminishes to zero. This part of the ripple effect is referred to as ***induced income impacts***.

So we have direct effects and two types of indirect effects – one generated by industry-industry purchases and sales and one generated by expenditures by employees from wages and salaries. The summation of these impacts are revealed in the tables as ***total impacts***. If the total impacts are divided by the direct impacts, we obtain the ***ripple or multiplier effect***. Consider the employment multiplier of 1.5; the interpretation is as follows, for every direct job, an additional 0.5 jobs are generated through a combination of the indirect and induced impacts.

The closure of a facility in the Chicago metropolitan area will generate two types of impacts – a redistribution effect (associated with the redeployment of employees to other facilities in the metropolitan region) and a reduction in activity (associated with the relocation of employees outside the metropolitan region).

1 Introduction

This report attempts to assess the impacts closure of the selected DHS facility Murray Development Center, on the metropolitan and regional economies in which each of the facilities is located. The local economies are defined as individual counties or aggregations of counties in the case of metropolitan areas. The analysis attempts to document (1) the impact of the current operations on these economies and (2) the impacts on the specific community in which each facility is located. Closure of this operation will involve the following impacts:

1. Transfer of a subset of existing employees to other facilities within the state or to alternative community-based facilities that may or may not share the same characteristics as the state-run operations;
2. Redirection of non-wage and salary expenditures to employees and the impact generated by purchases of goods and services from non-state operated vendors, many of who may be located outside local economies in which the facilities are located.

In the first case, the net impact on the region will vary depending on (1) the size of the compensation provided to communities to offer alternative care facilities in comparison to the current levels of expenditures on both wages and salaries and goods and services purchased from vendors and (2) the degree to which existing employees opt to seek jobs in the new facilities. The major changes that may occur may result in a downsizing in the direct employment in the alternative facilities and the degree to which the occupational profile of the workforce in the new facilities mirrors that of the state-run operations.

2 Methodology

Almost all impact studies employ a form of model that assesses the direct and indirect impacts of any change in an activity on an economy. In this case, REAL used a combination of its own model for the Chicago region with a set of models generated from IMPLAN data for facilities located outside the Chicago region. All the models attempt to understand and interpret the way in which a direct effect (in this case the closure of the selected facilities) generates a ripple effect on a reference economy. This ripple effect will arise from (i) the expenditures of goods and service by employees in the facilities and (ii) through the purchases of goods and services (including medical supplies, utilities, building maintenance etc).

3 Results

The economic impacts for the facility proposed for closure are shown in a series of tables following this narrative. The magnitude of the impacts will vary according to the size of the facility and the structure of the community or county in which the facility is located. If the local economy is relatively small, then a larger percentage of the ripple effects will occur in other parts of the state; hence, the size of the local multiplier or ripple effect will be smaller than that observed in a larger, more sophisticated economy (such as the Chicago region). While there may be greater employment opportunities in a larger region, specific openings for the kinds of skills presented by employees in these facilities may not be available; it is likely that the problems of finding alternative employment will be greater in smaller communities. A further issue stems from the ability of employees to relocate where the relocation would involve the sale of a house or similar property. Given the depressed state of the housing market in some communities, selling a house may prove to be as difficult as finding another job; in many downstate communities, time on the market averages more than one year.

Consider the employment impacts; note that in the first column, 'Direct,' there is only one entry – the employment at the Murray facility of 643 persons. Similar lone entries can be found in the 'Income' and 'Output' tables. As a result of the payment of wages and salaries to facility employees and the expenditures by the facility on goods and services to ensure the operation of the facility, the columns detail the path of the ripple effects. The 'Indirect' column shows the employment, income and output generated in supplier firms providing the goods and services to the facility. The 'Induced' column shows the impacts of wages and salaries paid to the facility employees and those in firms providing goods and services to the facility as they are spent and re-spent in the county or community. The final column 'Total' sums all these activities. Hence, the 643 direct jobs generate a further 184 jobs for a total impact of 826 jobs. Each job in the facility thus generates another 0.3 jobs elsewhere in the region of impact. In essence, these may be the aggregations of parts of many jobs – the check-out clerk at the grocery store, a bank teller, auto repair shop mechanic and so forth. About $52M worth of income can be attributed to the facility.

At the end of each table is a summary, the multiplier, which describes the magnitude of the ripple effect.

DD Facilities

Murray Development Center

EMPLOYMENT

Description	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	0	0	0	0
21 Mining	0	0	0	0
22 Utilities	0	0	0	1
23 Construction	0	1	0	1
31-33 Manufacturing	0	1	1	1
42 Wholesale Trade	0	6	5	12
44-45 Retail trade	0	2	25	26
48-49 Transportation & Warehousing	0	3	3	6
51 Information	0	2	1	3
52 Finance & insurance	0	8	8	15
53 Real estate & rental	0	7	5	12
54 Professional- scientific & tech svcs	0	10	3	12
55 Management of companies	0	0	0	0
56 Administrative & waste services	0	7	1	9
61 Educational svcs	0	0	2	2
62 Health & social services	643	6	32	681
71 Arts- entertainment & recreation	0	0	1	2
72 Accommodation & food services	0	6	13	19
81 Other services	0	4	8	11
92 Government & non NAICs	0	7	5	12
Total	**643**	**70**	**114**	**826**
Multiplier	**1.28**			

LABOR INCOME

Description	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	$0	$4,082	$25,927	$30,009
21 Mining	$0	$517	$429	$946
22 Utilities	$0	$45,595	$45,988	$91,583
23 Construction	$0	$88,840	$43,324	$132,164
31-33 Manufacturing	$0	$69,764	$54,127	$123,891
42 Wholesale Trade	$0	$714,203	$630,288	$1,344,490
44-45 Retail trade	$0	$109,256	$1,552,820	$1,662,076
48-49 Transportation & Warehousing	$0	$244,684	$213,406	$458,090
51 Information	$0	$140,350	$76,290	$216,640
52 Finance & insurance	$0	$547,087	$517,091	$1,064,178
53 Real estate & rental	$0	$422,211	$332,683	$754,894
54 Professional- scientific & tech svcs	$0	$1,018,420	$301,651	$1,320,071
55 Management of companies	$0	$0	$0	$0
56 Administrative & waste services	$0	$426,021	$82,712	$508,733
61 Educational svcs	$0	$2,721	$112,311	$115,032
62 Health & social services	$39,220,354	$381,001	$1,930,860	$41,532,215
71 Arts- entertainment & recreation	$0	$12,666	$57,609	$70,275
72 Accommodation & food services	$0	$192,342	$411,371	$603,714
81 Other services	$0	$176,347	$376,722	$553,069
92 Government & non NAICs	$0	$775,845	$569,473	$1,345,318
Total	**$39,220,354**	**$5,371,951**	**$7,335,081**	**$51,927,386**
Multiplier	**1.32**			

TOTAL OUTPUT

Description	**Direct**	**Indirect**	**Induced**	**Total**
11 Ag, Forestry, Fish & Hunting	$0	$6,292	$39,966	$46,258
21 Mining	$0	$1,084	$900	$1,984
22 Utilities	$0	$244,562	$246,665	$491,227
23 Construction	$0	$121,176	$59,093	$180,269
31-33 Manufacturing	$0	$182,503	$141,598	$324,100
42 Wholesale Trade	$0	$847,255	$747,707	$1,594,962
44-45 Retail trade	$0	$98,772	$1,403,819	$1,502,591
48-49 Transportation & Warehousing	$0	$332,470	$289,970	$622,441
51 Information	$0	$231,268	$125,710	$356,978
52 Finance & insurance	$0	$1,103,919	$1,043,393	$2,147,313
53 Real estate & rental	$0	$2,654,928	$2,091,964	$4,746,891
54 Professional- scientific & tech svcs	$0	$1,020,343	$302,221	$1,322,564
55 Management of companies	$0	$0	$0	$0
56 Administrative & waste services	$0	$549,362	$106,658	$656,020
61 Educational svcs	$0	$2,309	$95,316	$97,625
62 Health & social services	$43,385,454	$421,462	$2,135,912	$45,942,828
71 Arts- entertainment & recreation	$0	$16,710	$76,003	$92,713
72 Accommodation & food services	$0	$307,127	$656,865	$963,992
81 Other services	$0	$256,358	$547,645	$804,002
92 Government & non NAICs	$0	$526,873	$386,727	$913,600
Total	**$43,385,454**	**$8,924,773**	**$10,498,131**	**$62,808,357**
Multiplier	**1.45**			

4 Community Level Impacts

The analysis in section 3 was calculated at the county level, with the county being the smallest geographic unit for which an impact model could be constructed. A further attempt was made to drill the impacts down to the level of the individual community, using information on the residence location of employees. The table below provides a summary assessment.

DD Facility

	Murray
Employment	428
Income	$26,924,161
Output	$32,565,905
Sales Tax	$330,859

5 State Sales and Income Taxes

Finally, even though the facilities are owned and operated by the state and thus do not incur sales taxes on goods and services purchased, the inputs into these goods and services are taxed. Further, employees in the facilities and those employees working in firms supplying the goods and services and in the activities providing consumer goods and services will all pay state income tax. The table below provides an estimate of the state income and sales taxes generated by the total impact of each facility on the economy. Property taxes, licenses and other fees, corporate taxes and so forth were not estimated.

DD FACILITY

	Murray
State Sales Tax	$638,113
State Income Tax	$332,285

6 Net Impacts

For Murray facilities, information was available for community investment associated with the first full year after closure that offset much of the negative impact of the closure of these facilities. Thus, it was possible to estimate a "net" effect on the community.

DD Facilities

MURRAY

EMPLOYMENT

Description	**Direct**	**Indirect**	**Induced**	**Total**
11 Ag, Forestry, Fish & Hunting	0	0	0	0
21 Mining	0	0	0	0
22 Utilities	0	0	0	0
23 Construction	0	0	0	1
31-33 Manufacturing	0	0	0	1
42 Wholesale Trade	0	3	3	6
44-45 Retail trade	0	1	12	13
48-49 Transportation & Warehousing	0	2	1	3
51 Information	0	1	0	1
52 Finance & insurance	0	4	4	7
53 Real estate & rental	0	3	3	6
54 Professional- scientific & tech svcs	0	5	1	6
55 Management of companies	0	0	0	0
56 Administrative & waste services	0	4	1	4
61 Educational svcs	0	0	1	1
62 Health & social services	310	3	15	328
71 Arts- entertainment & recreation	0	0	1	1
72 Accommodation & food services	0	3	6	9
81 Other services	0	2	4	5
92 Government & non NAICs	0	3	2	6
Total	**310**	**33**	**55**	**398**
Multiplier	**1.28**			

LABOR INCOME

Description	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	$0	$1,965	$12,484	$14,449
21 Mining	$0	$249	$207	$455
22 Utilities	$0	$21,954	$22,143	$44,098
23 Construction	$0	$42,777	$20,861	$63,637
31-33 Manufacturing	$0	$33,591	$26,062	$59,654
42 Wholesale Trade	$0	$343,891	$303,486	$647,377
44-45 Retail trade	$0	$52,607	$747,688	$800,296
48-49 Transportation & Warehousing	$0	$117,816	$102,756	$220,572
51 Information	$0	$67,579	$36,734	$104,313
52 Finance & insurance	$0	$263,424	$248,981	$512,406
53 Real estate & rental	$0	$203,296	$160,188	$363,484
54 Professional- scientific & tech svcs	$0	$490,373	$145,246	$635,619
55 Management of companies	$0	$0	$0	$0
56 Administrative & waste services	$0	$205,131	$39,826	$244,957
61 Educational svcs	$0	$1,310	$54,078	$55,388
62 Health & social services	$18,884,743	$183,453	$929,716	$19,997,912
71 Arts- entertainment & recreation	$0	$6,099	$27,739	$33,838
72 Accommodation & food services	$0	$92,614	$198,077	$290,690
81 Other services	$0	$84,912	$181,393	$266,305
92 Government & non NAICs	$0	$1,965	$12,484	$14,449
Total	**$18,884,743**	**$2,586,614**	**$3,531,868**	**$25,003,225**
Multiplier	**1.32**			

TOTAL OUTPUT

Description	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	$0	$3,030	$19,244	$22,273
21 Mining	$0	$522	$433	$955
22 Utilities	$0	$117,757	$118,770	$236,528
23 Construction	$0	$58,346	$28,453	$86,800
31-33 Manufacturing	$0	$87,876	$68,180	$156,055
42 Wholesale Trade	$0	$407,956	$360,024	$767,980
44-45 Retail trade	$0	$47,559	$675,944	$723,503
48-49 Transportation & Warehousing	$0	$160,086	$139,622	$299,708
51 Information	$0	$111,356	$60,530	$171,886
52 Finance & insurance	$0	$531,541	$502,398	$1,033,939
53 Real estate & rental	$0	$1,278,357	$1,007,288	$2,285,645
54 Professional- scientific & tech svcs	$0	$491,299	$145,521	$636,820
55 Management of companies	$0	$0	$0	$0
56 Administrative & waste services	$0	$264,520	$51,356	$315,876
61 Educational svcs	$0	$1,112	$45,895	$47,007
62 Health & social services	$20,890,254	$202,936	$1,028,449	$22,121,639
71 Arts- entertainment & recreation	$0	$8,046	$36,596	$44,642
72 Accommodation & food services	$0	$147,883	$316,283	$464,166
81 Other services	$0	$123,437	$263,693	$387,130
92 Government & non NAICs	$0	$253,691	$186,210	$439,902
Total	**$20,890,254**	**$4,297,311**	**$5,054,888**	**$30,242,453**
Multiplier	**1.45**			

7 Summary Evaluation

The decision to close a facility will generate not only a direct impact but, in some cases, important indirect effects on the local community or county in which it is located. The analysis conducted here only looks at the negative effects of the closure of the facility; However, there are other impacts that have not be considered – the nature and volume of charitable contributions – both time and money – provided by the facility employees; the impact of the closure and re-location of facility employees and their families on school district enrolments and so forth. All of these more qualitative impacts contribute to the fabric of the local community and may be valued just as highly – even is they are more difficult to measure.