

Impact of the Closure of Howe and Tinley Park Facilities

Report to the Illinois Department of Human Services

Submitted by

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November 2008

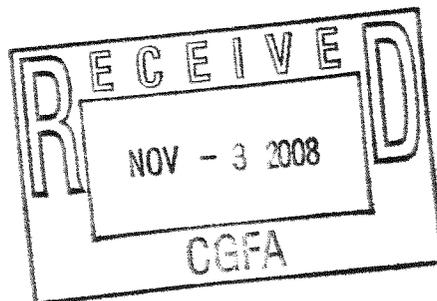


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Executive Summary

This report analyzes the current economic impact of the Howe and Tinley Park facilities on the Chicago metropolitan economy 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 on the Chicago region.

Table ES1: Summary Impacts of Howe and Tinley Park Facilities on the Chicago Region

	Howe	Tinley Park
Employment	1,136	284
Income	\$73.2 m	\$18.2 m
Production	\$105.9 m	\$29.5 m
State income taxes	\$1.1 m	\$0.3 m
State sales taxes	\$0.9 m	\$0.3 m

The data in this table can be considered an estimate of the total impact on the region if (1) the activities were closed and (2) all employees relocated outside the region. To put these numbers in perspective, the Chicago region currently employs just under 3.9 m persons, so the share for Howe would be 0.03% of the region's total. Last month (September, 2009), the Chicago region added 5,300 jobs; in aggregate, the complete loss of these facilities could be expected to be absorbed through normal growth. However, analysts are suggesting there will be some difficult times in the months ahead. Inasmuch as between 12-20% of the employees are expected to be transferred to other facilities in the greater Chicago region, the impacts will be even smaller. Table ES2 shows the anticipated impact on the community of Tinley Park of the closure of both facilities.

Table ES2: Estimated Impacts on the Tinley Park Community

	Howe	Tinley Park
Employment	34.08	7.32
Income (\$m)	\$2.20	\$0.54
Output (\$m)	\$3.18	\$0.88
Sales Tax (\$m)	\$0.03	\$0.01

Note: Sales tax estimates are for state revenues: the community typically received a portion of this amount

Many of the current employees live throughout the Chicago region and thus the localized impact is likely to be modest. Further, the sites might be redeveloped for residential or commercial activities (or some combination), bringing additional real estate taxes to the community of Tinley Park and the prospect of additional jobs and sales tax revenue. An impact analysis on the effects of a replacement psychiatric hospital will be provided as more information is gathered via the RFI process in which DMH is currently engaged.

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 of the closure of two facilities, Howe and Tinley Park, on the metropolitan and regional economies. The analysis attempts to document (1) the impact of the current operations on the metropolitan economy and (2) the potential impact on Tinley Park itself. Closure of these operations will involve four major outcomes:

1. Transfer of a subset of existing employees to other facilities within the metropolitan region
2. Redirection of non wage and salary expenditures to other vendors, many of who may be located outside the metropolitan region
3. Relocation of other employees outside the metropolitan region
4. Re-use of the existing facilities

In the first case, the net impact on the region will be close to zero; employees will continue to spend their salaries on a variety of goods and services. The only changes that may result will be generated by employees who choose to relocate closer to their new place of employment; in this case, the geographic distribution of purchases may also change. In the case of options two and three, the existing impacts on the region will be felt in other communities outside the Chicago metropolitan region. Outcome four remains the most difficult to assess since impacts could be similar to those of the existing facilities, or they could vary dramatically – either larger or smaller.

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. All the models attempt to understand and interpret the way in which a direct effect (in this case the closure of the two 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 service (including medical supplies, utilities, building maintenance etc).

3. Results

Tables 1 through 8 provide the impacts of the current facilities on the Chicago region economy; the reason why the broader six-county region was chosen was based on the wide geographic dispersal of the employees and the sample of vendors provided to the research team. In section 4, an attempt will be made to assess the impact on Tinley Park itself.

The data entered as direct impacts were drawn from information provided to REAL; the outcomes were analyzed over a set of 400+ sectors. However, for ease of presentation, the sectors were aggregated in a smaller set. Note that the direct impacts are concentrated into one sector – either Howe or Tinley Park. Note that the indirect and induced effects are much more widely distributed than the direct effect. This result is generated by the fact that expenditures from wages and salaries by employees and the indirect effects generated by vendors providing goods and services to the facilities ripple throughout the economy. In both cases (tables 1 and 5), the employment ripple effect is 1.38; for each person employed in Howe or Tinley Park, an additional 0.38 job is created elsewhere in the Chicago region. In income (wages and salaries) terms, the ripple effect is a little larger; for each dollar of income paid to employees in the two facilities an additional \$0.51 of income is generated elsewhere in the region (tables 2 and 6). When these impacts are translated into production terms (the value of goods and services produced), the ripple effect climbs to 1.91: for each dollar spent by the facilities, an additional \$0.91 is generated elsewhere in the region (tables 3 and 7).

Finally tables 4 and 8 document the facilities total contribution to state sales and income taxes.

The way to consider these results is as follows: what would happen if these facilities closed down completely and there was no re-direction of employees elsewhere in the region. Hence, they represent an upper bound of the impact of closure on the region. To put these numbers in perspective, the Chicago region currently employs just under 4 m persons, so the share for Howe would be 0.03% of the region's total. Last month (September, 2009), the Chicago region added 5,300 jobs; in aggregate, the complete loss of these facilities could be expected to be absorbed

through normal growth. However, analysts are suggesting there will be some difficult times in the months ahead. Inasmuch as between 12-20% of the employees are expected to be transferred to other facilities in the greater Chicago region, the impacts will be even smaller. In section 4, attention will be directed to the potential impacts on the Tinley Park community.

Table 1: Howe Employment Impact

Sector	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	0.0	0.1	0.2	0.2
21 Mining	0.0	0.0	0.0	0.0
22 Utilities	0.0	0.6	0.6	1.3
23 Construction	0.0	2.8	1.3	4.1
31-33 Manufacturing	0.0	7.2	7.8	15.1
42 Wholesale Trade	0.0	4.5	7.5	12.0
48-49 Transportation & Warehousing	0.0	7.2	7.1	14.3
44-45 Retail trade	0.0	2.9	39.5	42.5
51 Information	0.0	2.3	2.8	5.2
52 Finance & insurance	0.0	3.1	11.5	14.6
53 Real estate & rental	0.0	7.4	5.8	13.2
54 Professional- scientific & tech svcs	0.0	7.3	7.7	15.0
55 Management of companies	0.0	0.8	1.2	2.1
56 Administrative & waste services	0.0	33.5	9.9	43.4
61 Educational svcs	0.0	0.8	6.8	7.6
62 Health & social services	820.8	0.0	41.4	862.3
71 Arts- entertainment & recreation	0.0	1.6	6.7	8.3
72 Accommodation & food services	0.0	22.9	24.9	47.8
81 Other services	0.0	4.0	19.2	23.2
92 Government & non NAICs	0.0	2.3	2.2	4.5
Total	820.8	111.3	204.4	1136.6

Multiplier: 1.38

Table 2: Howe Labor Income Impact

Sector	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	\$0	\$1,997	\$4,436	\$6,432
21 Mining	\$0	\$43,726	\$72,884	\$116,611
22 Utilities	\$0	\$181,276	\$180,875	\$362,151
23 Construction	\$0	\$328,489	\$159,659	\$488,148
31-33 Manufacturing	\$0	\$764,166	\$853,728	\$1,617,894
42 Wholesale Trade	\$0	\$632,916	\$1,057,642	\$1,690,559
48-49 Transportation & Warehousing	\$0	\$593,083	\$667,679	\$1,260,762
44-45 Retail trade	\$0	\$162,884	\$2,113,572	\$2,276,456
51 Information	\$0	\$282,751	\$397,498	\$680,249
52 Finance & insurance	\$0	\$460,064	\$1,596,284	\$2,056,348
53 Real estate & rental	\$0	\$422,809	\$340,933	\$763,742
54 Professional- scientific & tech svcs	\$0	\$1,125,408	\$1,157,668	\$2,283,076
55 Management of companies	\$0	\$187,761	\$284,116	\$471,877
56 Administrative & waste services	\$0	\$1,930,041	\$610,751	\$2,540,792
61 Educational svcs	\$0	\$64,082	\$467,338	\$531,420
62 Health & social services	\$48,435,700	\$2,641	\$3,306,351	\$51,744,693
71 Arts- entertainment & recreation	\$0	\$57,666	\$356,890	\$414,556
72 Accommodation & food services	\$0	\$1,001,821	\$1,105,856	\$2,107,676
81 Other services	\$0	\$226,195	\$973,652	\$1,199,848
92 Government & non NAICs	\$0	\$294,149	\$300,023	\$594,172
Total	\$48,435,700	\$8,763,927	\$16,007,835	\$73,207,462

Multiplier: 1.51

Table 3: Howe Output Impact

Sector	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	\$0	\$8,635	\$18,117	\$26,753
21 Mining	\$0	\$130,290	\$217,254	\$347,544
22 Utilities	\$0	\$661,037	\$658,591	\$1,319,628
23 Construction	\$0	\$429,588	\$216,830	\$646,418
31-33 Manufacturing	\$0	\$2,556,157	\$3,200,079	\$5,756,235
42 Wholesale Trade	\$0	\$1,211,930	\$2,025,210	\$3,237,140
48-49 Transportation & Warehousing	\$0	\$883,687	\$1,204,098	\$2,087,785
44-45 Retail trade	\$0	\$245,273	\$3,290,558	\$3,535,831
51 Information	\$0	\$648,515	\$1,004,306	\$1,652,821
52 Finance & insurance	\$0	\$810,650	\$3,369,039	\$4,179,689
53 Real estate & rental	\$0	\$2,805,565	\$1,868,451	\$4,674,017
54 Professional- scientific & tech svcs	\$0	\$1,368,384	\$1,465,247	\$2,833,632
55 Management of companies	\$0	\$196,406	\$297,197	\$493,603
56 Administrative & waste services	\$0	\$2,330,170	\$805,243	\$3,135,413
61 Educational svcs	\$0	\$95,582	\$517,835	\$613,417
62 Health & social services	\$55,493,000	\$6,923	\$4,978,244	\$60,478,168
71 Arts- entertainment & recreation	\$0	\$76,227	\$558,053	\$634,279
72 Accommodation & food services	\$0	\$1,580,066	\$1,759,117	\$3,339,183
81 Other services	\$0	\$493,738	\$2,025,835	\$2,519,573
92 Government & non NAICs	\$0	\$391,049	\$3,977,538	\$4,368,587
Total	\$55,493,000	\$16,929,873	\$33,456,839	\$105,879,714

Multiplier: 1.91

Table 4: Howe Sales and Income Tax Impact

Indirect Bus Tax: Sales Tax	\$1,071,522
Personal Tax: Income Tax	\$889,918

Table5: Tinley Park Employment Impact

Sector	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.1
21 Mining	0.0	0.0	0.0	0.0
22 Utilities	0.0	0.2	0.2	0.3
23 Construction	0.0	0.7	0.3	1.0
31-33 Manufacturing	0.0	1.8	2.0	3.8
42 Wholesale Trade	0.0	1.1	1.9	3.0
48-49 Transportation & Warehousing	0.0	1.8	1.8	3.6
44-45 Retail trade	0.0	0.7	9.9	10.6
51 Information	0.0	0.6	0.7	1.3
52 Finance & insurance	0.0	0.8	2.9	3.6
53 Real estate & rental	0.0	1.8	1.4	3.3
54 Professional- scientific & tech svcs	0.0	1.8	1.9	3.7
55 Management of companies	0.0	0.2	0.3	0.5
56 Administrative & waste services	0.0	8.4	2.5	10.8
61 Educational svcs	0.0	0.2	1.7	1.9
62 Health & social services	205.0	0.0	10.3	215.3
71 Arts- entertainment & recreation	0.0	0.4	1.7	2.1
72 Accommodation & food services	0.0	5.7	6.2	11.9
81 Other services	0.0	1.0	4.8	5.8
92 Government & non NAICs	0.0	0.6	0.6	1.1
Total	205.0	27.8	51.1	283.9

Multiplier: 1.38

Table 6: Tinley Park Labor Income Impact

Sector	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	\$0	\$494	\$1,098	\$1,592
21 Mining	\$0	\$10,822	\$18,038	\$28,860
22 Utilities	\$0	\$44,864	\$44,765	\$89,629
23 Construction	\$0	\$81,298	\$39,514	\$120,812
31-33 Manufacturing	\$0	\$189,124	\$211,290	\$400,415
42 Wholesale Trade	\$0	\$156,641	\$261,757	\$418,399
48-49 Transportation & Warehousing	\$0	\$146,783	\$165,245	\$312,028
44-45 Retail trade	\$0	\$40,312	\$523,091	\$563,403
51 Information	\$0	\$69,978	\$98,377	\$168,356
52 Finance & insurance	\$0	\$113,862	\$395,066	\$508,928
53 Real estate & rental	\$0	\$104,642	\$84,378	\$189,020
54 Professional- scientific & tech svcs	\$0	\$278,529	\$286,513	\$565,041
55 Management of companies	\$0	\$46,469	\$70,316	\$116,785
56 Administrative & waste services	\$0	\$477,668	\$151,156	\$628,824
61 Educational svcs	\$0	\$15,860	\$115,662	\$131,522
62 Health & social services	\$11,987,412	\$654	\$818,293	\$12,806,358
71 Arts- entertainment & recreation	\$0	\$14,272	\$88,327	\$102,599
72 Accommodation & food services	\$0	\$247,942	\$273,690	\$521,631
81 Other services	\$0	\$55,981	\$240,970	\$296,952
92 Government & non NAICs	\$0	\$72,799	\$74,253	\$147,052
Total	\$11,987,412	\$2,168,995	\$3,961,799	\$18,118,207

Multiplier: 1.51

Table 7: Tinley Park Output Impact

Sector	Direct	Indirect	Induced	Total
11 Ag, Forestry, Fish & Hunting	\$0	\$2,403	\$5,041	\$7,443
21 Mining	\$0	\$36,250	\$60,446	\$96,696
22 Utilities	\$0	\$183,918	\$183,237	\$367,155
23 Construction	\$0	\$119,523	\$60,328	\$179,851
31-33 Manufacturing	\$0	\$711,190	\$890,346	\$1,601,536
42 Wholesale Trade	\$0	\$337,191	\$563,467	\$900,657
48-49 Transportation & Warehousing	\$0	\$245,865	\$335,012	\$580,877
44-45 Retail trade	\$0	\$68,241	\$915,520	\$983,761
51 Information	\$0	\$180,434	\$279,424	\$459,858
52 Finance & insurance	\$0	\$225,544	\$937,355	\$1,162,899
53 Real estate & rental	\$0	\$780,582	\$519,852	\$1,300,434
54 Professional- scientific & tech svcs	\$0	\$380,721	\$407,670	\$788,391
55 Management of companies	\$0	\$54,645	\$82,688	\$137,333
56 Administrative & waste services	\$0	\$648,314	\$224,040	\$872,354
61 Educational svcs	\$0	\$26,593	\$144,075	\$170,669
62 Health & social services	\$15,439,612	\$1,926	\$1,385,078	\$16,826,616
71 Arts- entertainment & recreation	\$0	\$21,208	\$155,265	\$176,473
72 Accommodation & food services	\$0	\$439,616	\$489,433	\$929,049
81 Other services	\$0	\$137,371	\$563,641	\$701,012
92 Government & non NAICs	\$0	\$108,800	\$1,106,656	\$1,215,456
Total	\$15,439,612	\$4,710,336	\$9,308,573	\$29,458,520

Multiplier: 1.91

Table 8: Tinley Park Sales and Income Tax Impact

Indirect Bus Tax: Sales Tax	\$298,126
Personal Tax: Income Tax	\$247,599

4 Impacts on Tinley Park Community

Figures 1 and 2 detail the geography of employees in the Chicago metropolitan region – not individually but aggregated by major geographic area. The bars represent the total amount of direct income that moves from the two facilities to the location of the residence of employees. The data reveal that less than 3% of Howe’s employees’ income is allocated to those who live in the Tinley Park Community; for the Tinley Park facility, the number is in excess of 4%.

It has already been noted that a large number of the vendors are located outside the Tinley Park Community; REAL’s assessment is that of the total impacts shown in tables 1 through 8, somewhere between 3 and 6% can be reasonably attributed to impacts in the Tinley Park Community. Employees who do not live in the community can be expected to spend part of their salaries there – for lunches for example or picking up groceries or medications on the way home. However, the vast majority of non Tinley Park resident expenditures will be outside the community.

Since, at this time, the specific employees who will be redirected to other facilities in the Chicago region is not known, it would be difficult to narrow the impacts. For example, if the current employees who are Tinley residents are re-assigned within the region, there is a high probability that they remain in the community (even more so given the current housing market). If Tinley Park residents are re-assigned outside the region – to Dwight, Kankakee or further downstate, there is a high probability that they will relocate.

Hence, table 9 presents an estimate of the impacts assuming that 3% of the current impacts are assigned to Tinley Park community and that they will be lost in the closure of the facilities. These estimates take into account the ripple effects.

Table 9: Estimated Impacts on Tinley Park

	Howe	Tinley Park
Employment	34.08	7.32
Income (\$m)	\$2.20	\$0.54
Output (\$m)	\$3.18	\$0.88
Sales Tax (\$m)	\$0.03	\$0.01

Note: Sales tax estimates are for state revenues: the community typically received a portion of this amount

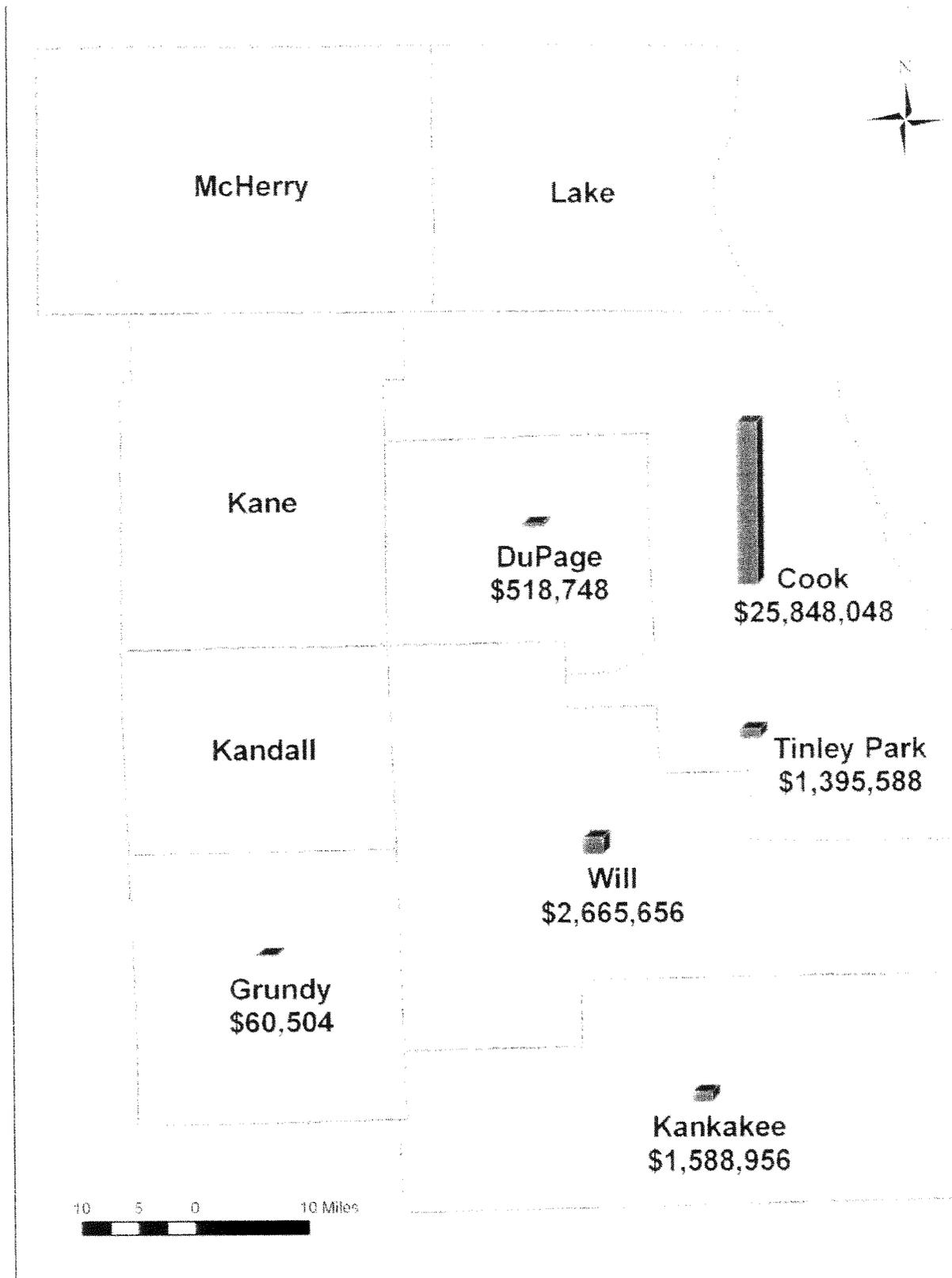


Figure 1: Geographic Distribution of Howe Employee Salaries within the Chicago Region

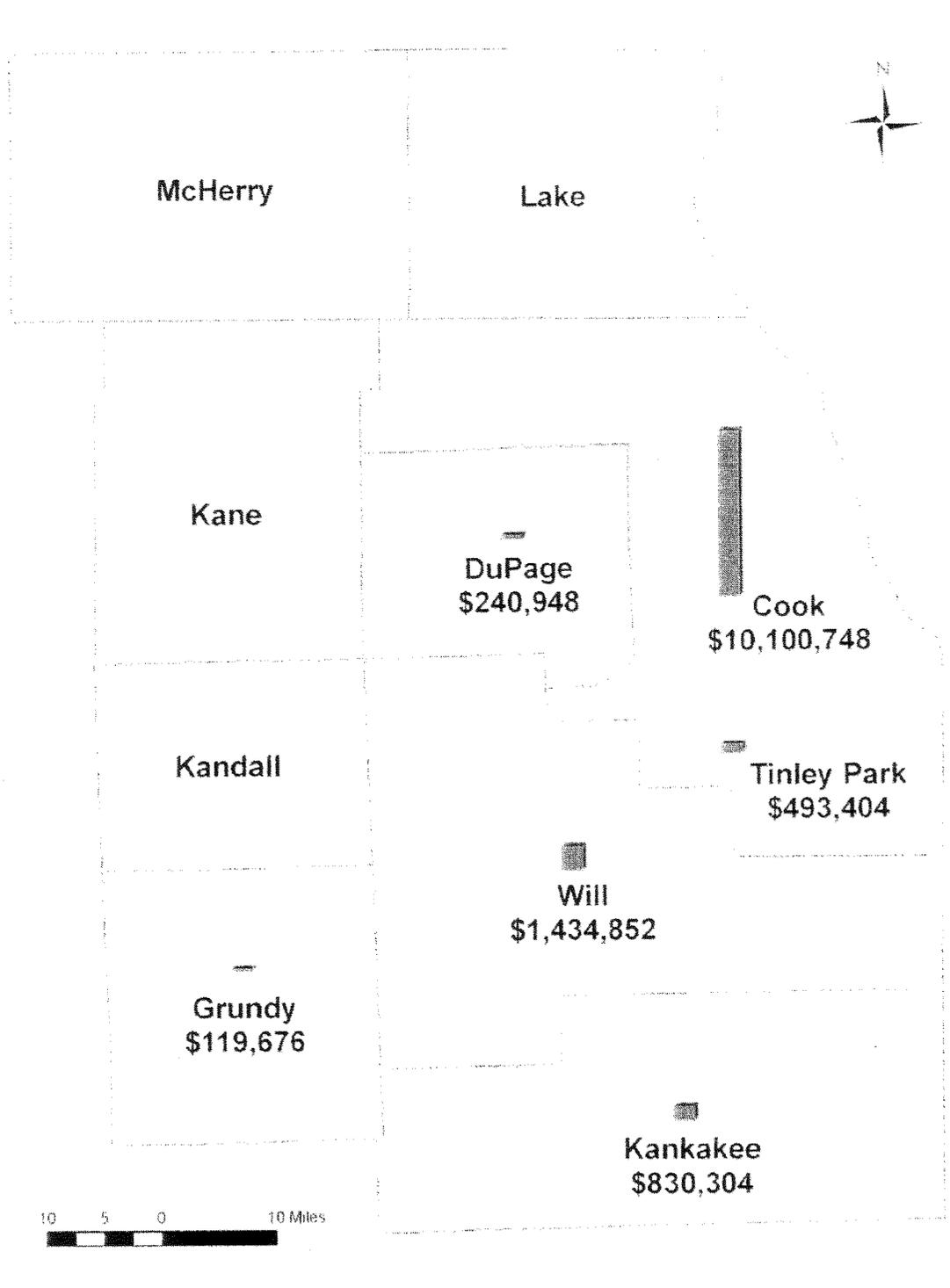


Figure 2: Geographic Distribution of Employee Salaries for Tinley Park Facility within the Chicago Region

5. Summary Evaluation

The very dispersed locations of employees (more so for Howe), suggests that the impact on the community of Tinley Park from the closure of these facilities is likely to be relatively modest. In addition, the re-use of the facilities presents an economic development opportunity for the community. For example, if the site was converted to some mixed use facility (residential and commercial) or to an office building, the community would benefit in two ways. First, the re-uses would be subject to property tax assessments, thereby generating additional income for the community; secondly, either the residential/commercial or office redevelopment would bring potentially additional people into the community whose expenditures might more than replace those lost by the closure of the other facilities.

Hence, from an economic impact perspective, the impacts are modest; if both facilities were closed and all employees left the region completely, the total impact would amount to less than 0.03% of the Chicago region's employment. The re-use options present the potential for enhancing the contribution to the community – through additional real estate taxes and additions to the sales taxes returned to the community from the activity of new residents and tenants in the re-used facilities. These outcomes will occur as a result of conversion of the facilities to private sector uses. However, given the current state of the residential and commercial real estate market, there may be some delay in realizing the benefits from these re-uses. Over the period of a decade or more, the outcomes most probably would be significantly positive for the community.

An impact analysis on the effects of a replacement psychiatric hospital will be provided as more information is gathered via the RFI process in which DMH is currently engaged.