

# Perspectives on the Assembled Workforce in Real Property Valuation

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## Abstract

A valuation assignment, such as an appraisal for ad valorem tax purposes, may require appraisers to remove the value of identified non-real property elements from the real property value. This article examines theory and practice surrounding one recognized yet debated non-real property element: the trained and assembled workforce. The article describes the appraisal context where an assembled workforce is likely relevant, the theoretical footings of this intangible asset, and a step-by-step conceptual treatment of the assembled workforce in real property valuations. Then, a case study is presented that demonstrates a unique market test of basic concepts. The article concludes with key practical insights for real property appraisers and related practitioners.

## Introduction

The Uniform Standards of Professional Appraisal Practice (USPAP) requires appraisers to identify “any personal property, trade fixtures, or intangible assets that are not real property but are included in the appraisal” for the development of real property appraisals.<sup>1</sup> This is most relevant to appraisals of real properties that are intertwined with operating businesses, such as hotels and nursing homes. Appraisers are at times tasked with more than simply identifying the non-real property elements. When the scope of appraisal calls for it, such as with ad valorem tax purposes, the appraiser must remove the value of identified non-real property elements from real property value. This article examines theory and practice surrounding one recognized non-real property element: the trained and assembled workforce.<sup>2</sup>

There are differing views on the removal of the value of a trained and assembled workforce from real property value. Before delving into these perspectives, the discussion will first describe the

real property appraisal context where an assembled workforce is likely relevant at all. This is followed by a discussion of the theory and precedent regarding how an assembled workforce is treated in real property valuations, and a road map of potential steps entailed. A case study will then be presented that demonstrates a unique market test of basic theoretical concepts. The case study property is an owner-occupied juvenile detention center. Importantly, recent comparable sales had occurred of facilities that were no longer in operation but still reflected a similar highest and best use, providing a reasonableness check for assumptions applied in the income approach to address the assembled workforce.

## Assembled Workforce in Real Estate Contexts

The issue of an assembled workforce is irrelevant when a market lease rate for real property is ascribable to a subject property based on its high-

1. Appraisal Standards Board, Standards Rule 1-2(e)(iii), “Problem Identification” in *Uniform Standards of Professional Appraisal Practice (USPAP)*, 2020–2021 ed. (Washington, DC: The Appraisal Foundation, 2020), Lines 477–478.
2. William N. Kinnard Jr., Elaine M. Worzala, and Dan L. Swango, “Intangible Assets in an Operating First-Class Downtown Hotel,” *The Appraisal Journal* 69, no. 1 (January 2001): 68–83.

est and best use. The lease rate can then form the basis for the income approach to value. Certain property types, however, are an integral part of the business that occupies the property. Hotels, nursing homes, hospitals, and correctional facilities are good examples of this situation. The real estate and business are intertwined, and typically occupied and operated by the same entity rather than through an arm's-length lease. In this article, this type of real property will be referred to as "real property going concerns."

Without market support for a real property lease rate, appraisers rely on the financials of real property going concerns for the income approach analysis. The financials of real property going concerns reflect income from more than the real property alone. As noted, real estate appraisers must disclose, and at times separate, any non-real property elements that are part of the real property appraisal. It is at these times that the question of potential value attributable to the assembled workforce is relevant—when appraising a real property going concern and when required to isolate real property value.

The sales comparison approach and cost approach each present their own difficulties in separating real property value for real property going concerns. These property types are commonly sold while still operating as real property going concerns, and the reported allocation of the purchase price among the acquired components is often arbitrary or in keeping with a purpose other than market value, and sometimes overlooked altogether. When these property types sell after the business operation has closed, the closed operation may indicate that the highest and best use of the property has changed. In that instance, the sale of a closed hotel that is no longer economically viable and is purchased for redevelopment to an alternative use does not inform the analysis of the value of an operating hotel for which the highest and best use remains a hotel. The cost approach is also limited in this context because of the difficulty in determining

accrued depreciation without market data on real property sales and rentals.<sup>3</sup> By default, the income approach often represents the most reliable way to isolate real property value when appraising a real property going concern.

### Theory and Precedent

The concept that an assembled workforce has an identifiable economic value is nothing new. For instance, almost a half century ago scholars noted the following:

Suppose that tomorrow your firm had all of its present facilities—everything, but no personnel except the president; and he had to rebuild the human organization back to its present effectiveness. How much would this cost?<sup>4</sup>

This broad concept is also recognized with specific regards to real property going concerns by the Appraisal Institute, which states that "attributes of an assembly of people with special skills, team-working ability, pride of workmanship, or loyalty can be a valuable intangible business asset."<sup>5</sup>

The notion that an assembled workforce is a conceptually separable—though difficult to measure—intangible business asset was explicated in the 1994 US Court of Appeals decision *Ithaca Industries Inc. v. Commissioner of Internal Revenue*.<sup>6</sup> Ithaca Industries Inc. was a manufacturing company that transferred ownership in October 1983 for an amount of \$110 million. It was appraised at the time of transfer in order to allocate the purchase price among the acquired assets for income tax purposes—or in accounting terms, to determine the basis for depreciable and amortizable assets. The value ascribed to the assembled workforce, comprised of 5,153 line workers and 212 non-line employees, was \$7.7 million. The decision ultimately granted on February 23, 1994, recognized the value of the assembled workforce as a separable intangible asset. While this decision was not specific to the realm of real

3. Kinnard Jr., Worzala, and Swango, "Intangible Assets."

4. Rensis Likert and William C. Pyle, "Human Resource Accounting: A Human Organizational Measurement Approach, Part II," *Financial Analysts Journal* 27, no. 1 (1971): 75–84.

5. Appraisal Institute, *Fundamentals of Separating Real Property, Personal Property, and Intangible Business Assets* (Chicago: Appraisal Institute, 2011).

6. *Ithaca Industries Inc. v. Commissioner of Internal Revenue*, 17 F.3d 684 (4th Cir. 1994), available at <https://bit.ly/3lZzhCV> and <https://bit.ly/3iaLS3V>.

property appraisals, it did clarify that the assembled workforce is a separable intangible asset and that there is a need for ongoing investment in an assembled workforce to maintain its value.

While the *Ithaca Industries* case clarified important concepts related to the assembled workforce, two cases more central to real property appraisal demonstrate implications for appraisers. In 1995, the US Court of Appeals supported a decision on separating the value of the assembled workforce from real property value. In that case involving the Burlington Northern Railroad Company and the Iowa Department of Revenue, the Department of Revenue appealed a decision by the district court that prohibited the state from collecting property taxes on the value attributable to intangible personal property, specifically including the assembled workforce. The appeals court upheld the favorable decision for Burlington Northern Railroad.<sup>7</sup>

A 2014 US Court of Appeals case involved the Ritz-Carlton Half Moon Bay hotel and the County of San Mateo, California. That dispute was in regard to real estate taxes on the property value assessed by the County of San Mateo. The operating hotel was acquired in 2004 for \$124.35 million in total, and the assessed value was determined to be \$116.98 million based on the county removing some intangible business assets from the real property value. The hotel argued that additional intangible business assets—including specifically the assembled workforce—should be excluded from the real property value. This argument was supported by the court of appeals.<sup>8</sup>

In sum, there is conceptual support and precedent for the broad point that an assembled workforce has separable value. However, the court decisions cited do not attempt to determine how this value should be quantified. This is where the issue becomes much more complicated as debate surrounds the *degree* of value when addressing the

separation of assembled workforce value in real property appraisals. The following discussion summarizes known views on quantifying workforce separable value, ranging from the least speculative to most speculative.

## Removing Workforce Value from Total Real Property Value of a Going Concern

### Quantifying Assembled Workforce Value

There are different perspectives regarding how to separate the assembled workforce value from real property value when appraising real property that is intertwined with a going concern. For instance, a 2017 publication by a special committee of the International Association of Assessing Officers (IAAO) seeks to guide real estate appraisers and assessors on how to address intangible assets in valuing properties that are part of a going concern.<sup>9</sup> The IAAO special committee's view on the assembled workforce is that its value is removed through the deduction of salaries and wages as an operating expense in the income approach to value, and assembled workforce value is otherwise inextricably intertwined with real property value. This view has received varied levels of support in adjudicated disputes, as summarized within IAAO's intangible assets guide; it is also in keeping with an established method known as "the Rushmore Approach." The Rushmore Approach was developed specifically in relation to hotels, but its fundamental treatment of the assembled workforce is generalizable. The Rushmore Approach states that a hotel's stabilized net income contains all workforce expenses incurred in carrying out its ongoing functions—specifically, salaries and wages along with any recurring expenses associated with employee turnover and replacement.<sup>10</sup> Contrary to the IAAO guide, others maintain that the value of the assembled workforce is not fully

7. *Burlington Northern Railroad Company Inc. v. Bair*, 93-4029 (8th Cir. 1995), available at <https://bit.ly/2FbhYOI>.

8. *SHC Half Moon Bay v. County of San Mateo*, A137218 (Cal. App. 1st Dist. 2014), available at <https://bit.ly/3jUHMJI>.

9. International Association of Assessing Officers (IAAO) Special Committee on Intangibles, "Understanding Intangible Assets and Real Estate: A Guide for Real Property Valuation Professionals," *Journal of Property Tax Assessment & Administration* 14, no. 1 (2017): 41–91, available at <https://bit.ly/327SdHS>.

10. Stephen Rushmore, "Why the 'Rushmore Approach' Is a Better Method for Valuing the Real Property Component of a Hotel," *Journal of Property Tax Assessment & Administration* 1, no. 4 (2004): 15–27, available at <https://bit.ly/35ewb8b>.

removed through the deduction of these ongoing expenses, and the workforce value must be further considered despite its embeddedness.<sup>11</sup>

The potential areas for removing the value of the trained and assembled workforce from a real property going concern are detailed below—shown from least to most debated deduction—and are summarized in Exhibit 1. The potential deductions for workforce value are ordered so that costs are recognized before return or loss are considered. The information is presented in the language of the income approach to value, specifically when the income approach is based on revenue from a real property going concern. The same concepts apply, however, to the sales comparison approach. That is, the costs and returns associated with the assembled workforce can also be used to quantify its “replacement cost,” which can then serve as the basis for an allocation of the value derived via the sales comparison approach.<sup>12</sup>

### **Potential Step 1: Deduction of Direct and Indirect Labor Costs (Salary, Wages, and Benefits)**

The deduction of labor costs, which are an expense required to generate the revenue, is largely accepted as a necessary step in deriving a net income attributable to the real property. This includes the direct compensation costs of salary and wages, and the indirect compensation costs of employee benefits. The actual compensation of the assembled workforce is a reasonable reference point. However, actual compensation rates of existing employees may vary from the current market rate required to replace the workforce with employees of comparable utility. A market survey of compensation rates provides a benchmark. The underlying logic of adjusting below- or above-market labor costs to within market range is that a rational investor would do so to support employee retention and return on investment, respectively. Alternatively, the appraisal may disclose rather

than adjust above-market pay, particularly when these obligations are inflexible. A workforce can represent a liability if it comes with significant obligations such as an onerous labor contract.<sup>13</sup>

Market surveys of compensation rates are most commonly conducted based on job category. Various free sources of market compensation data exist, including government agencies such as the US Bureau of Labor and Statistics and online job sites such as Indeed and Salary.com.<sup>14</sup> These sources also provide information on the employer-provided benefits for the calculation of total compensation. A 2019 report by the Bureau of Labor Statistics indicates that benefits, on average, comprise over 37% of the total compensation cost.<sup>15</sup>

### **Potential Step 2: Deduction of Cost to Maintain Workforce (Ongoing Recruiting, Hiring, and Training Costs)**

A subtle but important point in the previously noted *Ithaca Industries* court decision is that the assembled workforce at any given time requires ongoing investments in recruiting and hiring to address turnover as well as training to maintain the utility of the assembled workforce as a collective. In other words, the ongoing regeneration of the assembled workforce requires substantial effort on the part of the business. It is this point, that the assembled workforce is not a self-regenerating asset, that laid the groundwork for its treatment as a depreciable asset in the *Ithaca Industries* case. For the purpose of appraising real property going concerns, this points to the need to deduct workforce maintenance costs from income when using the income approach to value.

Costs associated with ongoing recruiting and hiring include advertising fees; fees to consultants for external support in recruiting; costs associated with screening, testing, and hosting candidates; relocation costs; hiring bonuses; and more. These costs correlate to some degree with

11. See, for example, Kinnard Jr., Worzala, and Swango, “Intangible Assets”; and Cris K. O’Neill and C. Stephen Davis, “Understanding Intangible Assets and Real Estate: A Response to the IAAO Committee’s Guide,” *California Tax Lawyer* 27, no. 1 (2018): 3–14.

12. See example in Kimberly K. Merriman, *Valuation of Human Capital: Quantifying the Importance of an Assembled Workforce* (Cham, Switzerland: Springer International Publishing, 2017).

13. IAAO Special Committee on Intangibles, “Understanding Intangible Assets.”

14. Online sources for data on market compensation include the US Bureau of Labor Statistics, <https://www.bls.gov/bls/blswage.htm>; Indeed, <https://www.indeed.com/salaries>; and Salary.com, <http://salary.com/>.

15. US Bureau of Labor Statistics, “Employer Costs for Employee Compensation,” news release December 18, 2019, available at <https://bit.ly/2R7T6JW>.

employee skill and ability levels since higher-level employees tend to require more extensive recruiting and screening efforts. As a benchmark of ongoing recruiting and hiring costs, one study analyzing case studies of turnover over a fifteen-year period through 2007 found that recruiting and hiring costs for jobs paying \$30,000 or less per year averaged just over 16% of compensation while jobs up to \$75,000 per year were in the average range of 20%; highly specialized jobs and executive-level positions could have recruiting and hiring costs that range much higher.<sup>16</sup> However, care must be taken to understand what is and is not included when referencing benchmarks. For instance, the above-cited percentages include initial training costs in some cases and are based on salary only rather than total compensation (salary plus benefits).

Costs associated with training may include compensation for those involved in administering training; costs of overhead, course materials, software, or licensing fees for online training modules; and course fees for external training. As a benchmarking source, *Training* magazine provides an annual industry report that analyzes training costs across a wide range of industries and positions.<sup>17</sup>

### Potential Step 3: Deduction of Entrepreneurial Return

A return on the assembled workforce is theoretically necessary and distinct from income attributed to the real property—otherwise a rational person would have little reason to pursue an assembled workforce when their expertise and capital could be invested elsewhere for a return. Framed in economic terms, the analysis must account for the opportunity costs associated with the factors of production. Classical economics recognizes three basic factors of production: land, labor, and capital. The latter two, labor and capital, are relevant factors of production in creating an assembled workforce. These can be labeled as the opportunity cost to the developer and the opportunity cost to capital. Unlike the workforce expenses described in potential Steps 1 and 2 above, these two opportunity costs are not recurring costs and

therefore can be deducted as a lump sum from the capitalized income value. The opportunity costs can be treated in the following ways.

- When valuing intangible assets, “a developer can be thought of as a special class of labor, making the development fee a special class of wage” and is therefore entitled to receive opportunity costs in exchange for the developer’s contribution to creating the asset.<sup>18</sup> The opportunity cost to the developer, or developer’s fee, is typically calculated as a percentage rate of return of total direct and indirect costs, at a rate in keeping with industry norms. Therefore, in valuing a firm’s human capital, the developer fee is calculated as a percentage rate of return on the total costs associated with the assembled workforce, at a rate in line with the prevailing terms of the market for a development initiative of equivalent effort and risk.
- The opportunity cost of capital is the return required to persuade an individual to pursue the investment. The underlying logic is that a return on capital invested to build the workforce is only gradually realized as the workforce becomes assembled and trained. A buyer of a real property going concern with a trained workforce already in place earns a return from day one, and the buyer, therefore, would theoretically place a higher value on such an investment. This opportunity cost can be calculated by applying an appropriate rate of return to the average workforce cost over the assemblage period. For instance, if the full workforce assemblage takes one year to complete, then the average cost throughout the year equates to half the total workforce compensation cost. Not all costs are incurred at once, and returns are gradually experienced leading up to stabilization at year-end. The rate of return applied should be based on the cost of capital, that is, the rate of return that could be earned by placing the money in a different investment of equivalent risk.

16. Heather Boushey and Sarah Jane Glynn, “There Are Significant Business Costs to Replacing Employees” (Center for American Progress, November 2012), available at <https://ampr.gs/2R5zpCH>.

17. 2019 *Training Industry Report, Training* (Nov/Dec 2019), available at <https://bit.ly/33bLRpV>.

18. Appraisal Institute, *Fundamentals of Separating Real Property*.

Conceptually, not all assembled workforces may warrant a return on investment. The likelihood that employees may not remain in place and the possibility that a buyer will not want to retain the workforce are both factors to consider. This point will be considered more closely in the case study that follows later. It should also be noted that this return is theoretically distinct from residual *economic profit*, the speculative return realized after the sale after all other costs, including the return to labor and capital, are satisfied.<sup>19</sup> With economic profit, the entrepreneur receives what is left over, if anything.

#### **Potential Step 4: Deduction of Lost Productivity during Assemblage of Workforce**

Removal of the expenses associated with the assembled workforce (Steps 1 and 2 above) before converting income to value can be seen as removing its value, or in other words the return of this intangible asset.<sup>20</sup> Step 3 above then represents a return on the intangible asset by acknowledging a return to developer labor and capital invested to form the intangible asset. A debated point is whether or not this fully accounts for the intangible asset value of the assembled workforce.

Lost productivity is a potential additional opportunity cost over and above the opportunity costs considered in Step 3,<sup>21</sup> though it has also been cast as representing the total opportunity cost.<sup>22</sup> Lost productivity occurs most significantly at the initial assemblage of the workforce, until all positions are filled and new hires reach full productivity. Due to the integral nature of the workforce to the revenue of the real property going concern, this lost productivity equates to a period of foregone or non-stabilized income. This is a cost that a new owner of the real property going concern would not have to incur (by acquiring rather than assembling a workforce), and therefore theoretically

enhances the value of the real property going concern by a commensurate amount.

A relatively precise estimate of lost productivity related to training requires consideration of the varied learning curves of employees. The amount of time entailed in hiring, employee learning, and the pace of productivity improvements commonly varies across job categories and seniority of the position. Estimates can be derived from actual company experience and market data to allow for an average by employee segments. The rate would be expressed as a percentage of the total compensation with the implicit assumption that employees are paid their marginal product (i.e., pay equals what employees contribute in value to the organization). For example, engineers may take on average a year to hire and reach full productivity. Productivity is at 0% while the position is vacant. The new hire may start at 60% productivity and then gradually increase to full productivity.

While a discounted cash analysis could determine the present value of the precise loss to productivity as it incrementally changes over the total period in question, the assumptions underlying this degree of precision would be difficult to defend. Alternatively, an average rate of loss by a workforce segment or the workforce overall is a more practical approach. For example, if employees take three months on average to hire and nine months to reach full productivity after hire, lost productivity would equate to 40% of total compensation: a 100% productivity loss for 25% of the year plus a 20% average productivity loss for 75% of the year.

#### **Summation**

In sum, even though there is general agreement that real property going concerns include some degree of intangible asset value related to the assembled workforce, the extent of this amount is far from settled. The following case study offers some central insights to inform this question.

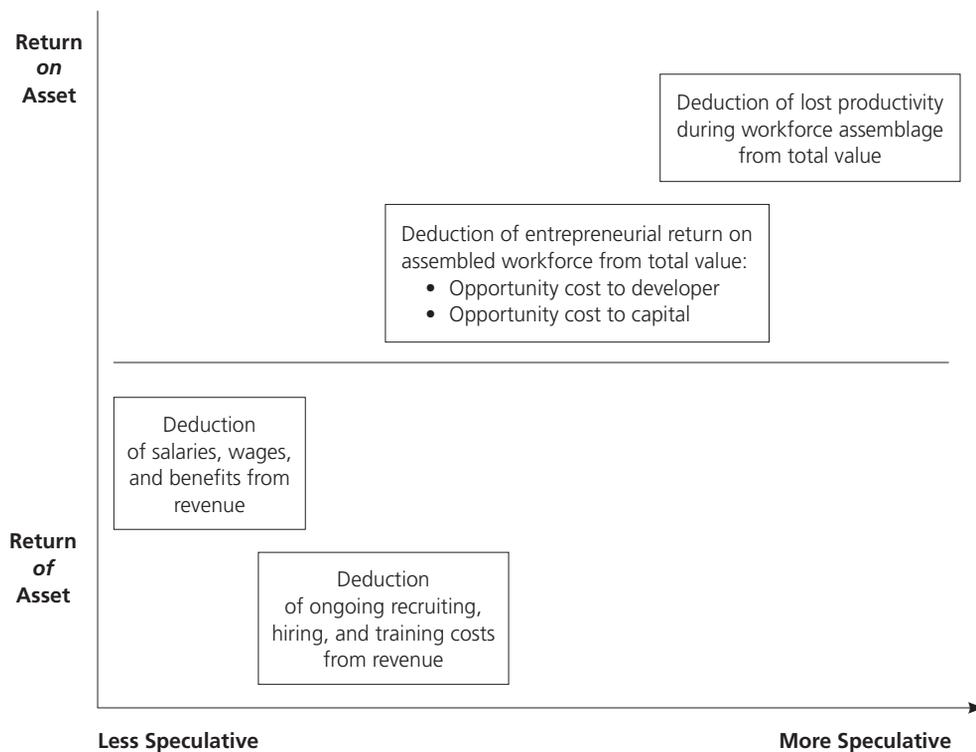
19. Appraisal Institute, *Fundamentals of Separating Real Property*.

20. IAAO Special Committee on Intangibles, "Understanding Intangible Assets."

21. Michael A. Harter and Justin M. Nielsen, "Valuing a Trained and Assembled Workforce," *Insights* (Summer 2016): 84–94, available at <https://bit.ly/2ZiM8qi>.

22. Kinnard Jr., Worzala, and Swango, "Intangible Assets."

### Exhibit 1 Potential Steps in Removing Value of Assembled Workforce, Least to Most Speculative Steps



### Case Study

The following is a case study of a hypothetical real property going concern in which the scope of the assignment requires isolation of real property, and thus removal of any value attributed to the assembled workforce. The case study is based on a composite of actual appraisal assignments and market information. Information has been altered for demonstration purposes and to maintain client confidentiality, but the pattern of findings remains unchanged. Market support for the value allocation of the assembled workforce is generally difficult to attain. However, the case depicts a somewhat rare instance in which financial statements for the real property going concern are available for the income approach and, importantly, non-operating comparable sales are available for the sales comparison approach.

An abbreviated version of the actual valuation steps is presented in order to highlight issues pertinent to the assembled workforce. The anal-

ysis supports a key point with regard to the return of the assembled workforce: both the deduction of payroll costs and the deduction of ongoing hiring costs from revenue were justified by the market. The analysis also provides insight for the return on the assembled workforce, which was not deemed theoretically present in this case and accordingly not supported through the reconciliation of value between the sales comparison and income approaches.

### Subject Description

The subject of the case is a hypothetical, owner-occupied juvenile correctional and treatment facility with 150 beds (150 single-bed rooms) and 150,000 square feet of gross building area. The subject contracts to securely house juvenile offenders and provide rehabilitation services, education, and treatment to these residents. As such, the revenue-generating contracts require substantial professional services and are not simply contracts to house individuals.

The importance of a trained workforce is often evident at the pre-inspection research stage and inspection of a subject property. The extensive services included in the subject revenues signal a clear impact of the assembled workforce on the value of the real property going concern since these programs could not operate without the staffing in place. Research into the for-profit correctional industry shows many properties built in the 1990s and early 2000s were initially fully occupied but closed rather quickly because of inability to maintain the contract requirements and sufficiently provide for the desired educational and counseling services, and safety, of the incarcerated population. History shows that many of these facilities now operate at a much lower occupancy due to the workforce constraints.

In short, this type of real property going concern shows the impact of a workforce on the real property value. Without a trained and adequate workforce, these properties cannot meet the contractual requirements and may be forced to operate at lower occupancy. This is an important point to bear in mind as the analysis proceeds with the otherwise standard steps in conducting the appraisal.

### **Highest and Best Use**

The issue of an assembled workforce has little direct bearing on the initial aspects of the appraisal—including the scope of work, intended user, and market conditions. Nor is the assembled workforce a substantive element in the description of the site, building improvements, zoning, and assessment. The highest and best use analysis is typically the first pivotal step in the valuation process that determines whether the assembled workforce is relevant to the appraisal. For the case study example, it must be established whether the highest and best use of the subject is the current use in order to justify valuing the subject as a real property going concern. A different highest and best use would likely require setting aside the subject financials and turning to market lease rates.

To evaluate the highest and best use as vacant and as improved, the subject is sequentially

viewed in terms of what is physically possible, legally permissible, financially feasible, and maximally productive.<sup>23</sup> Correctional facilities such as the subject are generally located remote from population centers in terms of access and visibility, features that detract from a site's desirability for most other uses. So, while a variety of uses are physically and legally possible for the subject site, the fettered visibility and access will limit financial feasibility for most permitted uses. At the same time, not all remote sites are financially feasible for correctional facility use since, in addition to navigating public concerns, reasonable proximity to a labor force, courthouse, and other supporting elements is also a factor. The subject site meets these conditions. The highest and best use is that use among financially feasible uses that produces the maximum value relative to risk. The highest and best use of the subject as vacant is for development of a permitted institutional use, such as a correctional facility or drug rehabilitation facility, that would benefit from the described locational characteristics. Therefore, the highest and best use of the case study improved property is continued use as a correctional facility.

### **Approaches to Value**

The highest and best use analysis supports valuing the subject property based on continued use as a correctional type facility, thus valuing it as a real property going concern. This justifies consideration of the subject financials in developing the income approach to value. Sales considered comparable to the subject have occurred, justifying development of the sales comparison approach to value. The cost approach is theoretically a good way to determine real property value without the intertwined elements of value related to intangibles and personal property. However, industry changes since the construction of the subject improvements, and the reduction in occupancy due to the workforce considerations, contribute to issues of functional and external obsolescence that are significant and difficult to estimate. Therefore, the cost approach is not developed.

23. Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 6th ed. (Chicago: Appraisal Institute, 2015), s.v. "highest and best use."

### Income Approach

Development of the income approach involves estimating the property's potential annual gross income, and then deducting a vacancy and collection loss allowance as well as the ownership expenses from annual gross income to obtain net operating income. The net operating income is then converted into a market value estimate with the use of an appropriate technique. The subject's market value was estimated by employing direct capitalization. A summary of each step of the income approach follows, and results are detailed in Exhibit 2.

**Annual Gross Revenue.** As noted earlier, the subject's revenue generation requires substantial professional services. The sources of income for the subject property are a per diem rate per occupant for housing and treatment, and the program revenue generated from providing academic education to occupants. To estimate these revenues, it is customary to rely on the normalized income and occupancy of the subject property in conjunction with market benchmarks. For this example, the subject's annual gross revenue is estimated based on an average per diem rate of \$400, average occupancy of 100 beds per day for a 365-day year, and program revenue of 3% of occupancy revenue. This results in total gross revenue of \$15,038,000.

**Departmental Expense.** Again, it is customary to rely on the normalized financials for a stabilized subject operation and market benchmarks. Expenses associated directly with gross revenue for the subject property type include labor costs; services and supplies including medical, clothing, and food; program expenses; and other miscellaneous operating costs. Labor costs include compensation and employee benefits, which can range from 70% to 80% of gross revenue for this type of labor-intensive going concern. For this case study example, the subject's annual departmental expenses are estimated at an average per diem cost of \$340 per occupied bed, or approximately 83% of gross revenue. This step removes a significant portion, *but not all*, of the expense associated with the assembled workforce necessary to generate the revenue; additional workforce-related expenses are accounted for in the next step.

**Undistributed and Fixed Expenses.** Undistributed operating expenses for the subject property type generally consist of administrative and general expenses, utilities, repair and maintenance expenses, miscellaneous operating expenses, and importantly, ongoing recruiting and hiring expenses to maintain staffing. A review of actual financials across the subject property type indicates an average stabilized expense to maintain staffing that is equivalent to 0.6% of gross revenue. Absent reliable actual expenses, this expense would be estimated based on market benchmarks for turnover and staffing costs, as described earlier. Fixed expenses consist of insurance and real estate taxes. Real estate taxes for the subject property are loaded in the capitalization rate by adding real estate taxes expressed as a percentage of property value (commonly referred to as the effective or ad valorem tax rate). This has the same effect on value as deducting real estate taxes as an expense and is used instead of actual taxes when seeking to align taxes with the value estimate. Normalized subject expenses are checked against market standards for reasonableness. Ongoing recruiting and hiring expenses for the case study example equated to approximately 1% of gross revenue. Including consideration of the ongoing expense to maintain the trained and assembled workforce is consistent with the theoretical and judicial concept that an assembled workforce is a depreciable asset, as discussed earlier.

An overall management fee of 6% is estimated to allow for professional management distinct from the included administrative expense that addresses operational management. Ownership expenses must also include a reserve to replace building structures, mechanical systems, and site improvements that have a shorter life than the overall facility. An amount of \$0.40 per square foot of gross building area was estimated in total. It should be noted that market participants often do not reflect a deduction for replacement reserves in net income, thus adjustments may be necessary in translating market-derived overall rates to the property being valued. For example, a market-extracted capitalization rate that ignores reserves would be adjusted downward to reflect a riskier income profile relative to a subject property with reserves considered in net income.<sup>24</sup>

24. Daniel Kann, "Capital Ideas: Capitalization Rates and How They're Misused in the Marketplace," *Valuation* (third quarter, 2014): 34-35.

## Exhibit 2 Income Approach Summary

<b>Gross Revenue</b>			
Occupancy Revenue (per diem = average daily rate per occupied bed)			
Daily Occupied Beds	Per Diem		
100	\$400 x 365 days		\$14,600,000
Program Revenue @ 3% of occupancy revenue			<u>438,000</u>
Total Gross Revenue			\$15,038,000
<b>Departmental Expense*</b>	\$340 x 365 days		<u>(12,410,000)</u>
<b>Departmental Income</b>			\$2,628,000
<b>Undistributed and Fixed Expenses</b>			
Management	6% Revenue	902,280	
Operating Expenses and Insurance†		1,443,648	
Real Estate Taxes	in cap rate	–	
Building/Site Reserve (including 2.4-mile private road)	\$0.40 SF	<u>60,000</u>	
Total Undistributed and Fixed Expenses			(2,405,928)
Net Operating Income before real estate taxes and FF&E			222,072
Less Return on and of FF&E (\$4,500/room x 150 rooms, 5% yield, 8 years)			<u>(102,545)</u>
<b>Net Operating Income before real estate taxes</b>			\$119,527
Capitalization Rate loaded for real estate taxes = 11%			
<b>Capitalized Value before return on assembled workforce (rounded)‡</b>			\$1,100,000
<b>Potential Return on Assembled Workforce</b>			
Opportunity Cost to Developer (total labor costs @ 7% return)		789,495	
Opportunity Cost to Capital (6 months of labor costs @ 5% cost of capital)		<u>281,963</u>	
Total Return on Assembled Workforce			<u>(1,071,458)</u>
<b>Capitalized Value after return on assembled workforce (rounded)</b>			\$100,000

\* Labor costs (salaries, wages, and benefits) included in this expense

† Ongoing cost of recruitment and hiring included in this expense

‡ Reflects value after return of assembled workforce

Finally, a return on and return of the furniture, fixtures, and equipment (FF&E) was deducted from income in order to remove these elements of personal property value. An annual amortized amount is calculated based on an average cost of \$4,500 per room at a 5% yield and 8-year life. This includes the furnishings for each of the 150 single-bed rooms and all miscellaneous FF&E throughout support areas. While this amount is low compared to hotel properties, furnishings for correctional facilities are relatively sparse in comparison to typical hotel properties. Removing income associated with FF&E from net income avoids erroneously applying the real estate tax load factor to personal property. However, as noted above, market-derived capitalization rates may require adjustment to reflect an equivalent income profile.

**Capitalization to Value.** Deducting ownership expenses and the return on and of FF&E from departmental income results in a net operating income of \$119,527 before real estate taxes. Assumptions are applied in keeping with the subject's risk level and income profile to conclude an 8% overall rate. For example, the CBRE North America Cap Rate Survey for the second half of 2019 reports an average capitalization rate of 8.55% for suburban hotel properties based on net operating income of the real property going concern and including deductions for management and replacement reserves, but excluding a return on FF&E and reflecting somewhat higher risk relative to the subject's longer-term contracted occupancies. The rate was then loaded for real estate taxes as described earlier by adding the effective tax of 3%. Capitalizing the net income at the loaded capitalization rate of 11% resulted in a value by the income approach rounded to \$1,100,000, *before consideration of a return on the assembled workforce.*

**Return On Assembled Workforce.** As described earlier, a return on the assembled workforce is theoretically necessary since a rational business owner would have little reason to pursue the assemblage when they could instead invest their expertise and capital elsewhere for a return. The return is labeled as the opportunity cost to the developer and the opportunity cost to the capital.

Following the format explained earlier, the opportunity cost to the developer (opportunity

cost for creating the asset) was calculated as a percentage rate of return of total compensation costs at a 7% rate of return. For the opportunity cost of capital (return required to persuade pursuit of the investment), there is assumed a 5% rate of return and average costs equal to half the total compensation cost throughout the year leading to a stabilized workforce. Together, the opportunity costs to the developer and capital total just over \$1,000,000. Deducting this amount from the value determined by the income approach results in a \$100,000 rounded value remaining for allocation to real property value.

However, recall that returns on an assembled workforce are conceptually realized because a buyer of a real property going concern would not incur these opportunity costs. If a going concern ceases prior to sale, a buyer would instead need to assemble a new workforce and would not avoid incurring the noted opportunity costs. Thus the conceptual rationale for a return on the assembled workforce is no longer met. Nonetheless, this remains an empirical question to examine. The sales comparison approach in this case, which involves comparable sales in which the going concern had ceased operation, provides a unique opportunity to probe this point.

### **Sales Comparison Approach**

The sales comparison approach is particularly useful in this instance to establish real property value. Because of the changing market for correctional facilities, sales of vacant correctional facilities are available for comparison. Privately operated juvenile correctional and treatment facilities house youths and provide significant rehabilitation, education, and treatment services for these individuals while housed. Two sales in particular reflected the closest match—both were vacant at the time of sale with no workforce in place, but purchased for the similar purpose of housing individuals for treatment and education, showing a continued highest and best use comparable to the subject's concluded highest and best use. The sales comparison also demonstrates that properties similar to the subject tend to sell vacant rather than while operating, even when the highest and best use remains the same. This had important implications for how the return on the assembled workforce is conceived for the income approach, as discussed earlier.

Each of the sales was compared to the subject, and adjustments were made in the following sequence:

- first, property rights conveyed, cash equivalency, and conditions of sale;
- next, market condition changes since the date of sale; and
- finally, location; site characteristics; relative building size; improvement age, quality, finish, and physical condition; functional utility; and land-to-building ratio.

The adjusted unit prices range from \$1.96 to \$10.70 per square foot, or \$5,524 to \$16,923 per bed. Given the likely reconfiguration of room use by each buyer of the non-operating comparable sales and the extensive support building area associated with each sale and the subject, the unit rate per bed is deemed less reliable than unit rate per square foot of gross building area as an indication of value. For instance, in response to market trends, it is common to see rooms converted to clinician offices and double-bed rooms converted to single-bed rooms. The subject and comparable sale properties commonly included classrooms, recreational areas, offices, and cafeteria facilities. After considering the comparable sales used in the analysis and all factors affecting market value, the market value of the subject's fee simple interest by the sales comparison approach is estimated to be \$7.00 per square foot of gross building area including land, resulting in a market value rounded to \$1,100,000 or \$11,000 per bed as a non-operating facility with no workforce in place.

### **Reconciling the Income and Sales Comparison Approaches to Value**

Recall that the income approach indicated a value after return *of*, but before return *on*, the assembled workforce of \$1,100,000. Further deducting an allowance for return on the assembled workforce reduced the value to \$100,000. The sales comparison approach indicated a value for real property (as a non-operating facility with no workforce in place) of \$1,100,000. Thus, as expected for this example, the value derived through the sales comparison approach does not support allowance for a return *on* the assembled workforce in the income approach. However, the value derived through the sales comparison approach does align with allowance of a return *of* the assembled workforce in the income approach

through deduction of labor costs and the ongoing costs to maintain the workforce through continuous recruitment, hiring, and training.

### **Conclusion**

This article has provided a conceptual review and case study on when and how to consider the removal of intangible asset value associated with the assembled workforce in the valuation of real property going concerns. The discussion began with the fundamental point that when appraising a real property going concern, the intangible asset value of the assembled workforce is inherent in the financials of the going concern and must be noted and, in some cases, removed. Next, the discussion addressed the varying degrees of value that appraisers and related practitioners might ascribe to the assembled workforce. The expenses associated with the return of the assembled workforce includes the labor costs in the form of payroll expenses (salaries, wages, and employer-provided benefits). Importantly, it also includes the ongoing cost to maintain the skilled assembled workforce, which typically encompasses recruitment and hiring expenses to address turnover and ongoing training costs.

The more complex and speculative topic of "return on" was also examined. A return on the assembled workforce is theoretically necessary since a buyer of the real property going concern would not incur these opportunity costs and would thus pay for the privilege of an assembled workforce. However, as the case study demonstrated, a return on the assembled workforce is not supported when the going concern is likely to cease operation prior to sale. Whether this market finding extends to real property going concerns such as hotels that tend to operate continuously from one owner to the next remains an empirical question. We encourage the continued development of market-derived insights on this point and offer this research as an instrumental contribution in the ongoing discussion among appraisers and related practitioners.

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### Additional Resources

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Suggested by the Y. T. and Louise Lee Lum Library

#### **American Bankruptcy Institute—“A Guide to Valuation of the Assembled Workforce Intangible Asset”**

<https://www.abi.org/abi-journal/a-guide-to-valuation-of-the-assembled-workforce-intangible-asset>

#### **Appraisal Institute**

- **AI Guide Note 5—“Appraisals of Real Estate with Related Personal Property, Business Property or Intangibles”**  
<https://www.appraisalinstitute.org/assets/1/7/guide-note-5.pdf>
- **Fundamentals of Separating Real Property, Personal Property, and Intangible Business Assets**  
<https://bit.ly/3espNf7>
- **Lum Library External Resources Knowledge Base [Login required]**  
Information Files—Business valuation; Special use properties

#### **The CPA Journal—“The Tangle of Intangible Assets and Business Combinations”**

<https://www.cpajournal.com/2016/01/13/tangle-intangible-assets-business-combinations/>