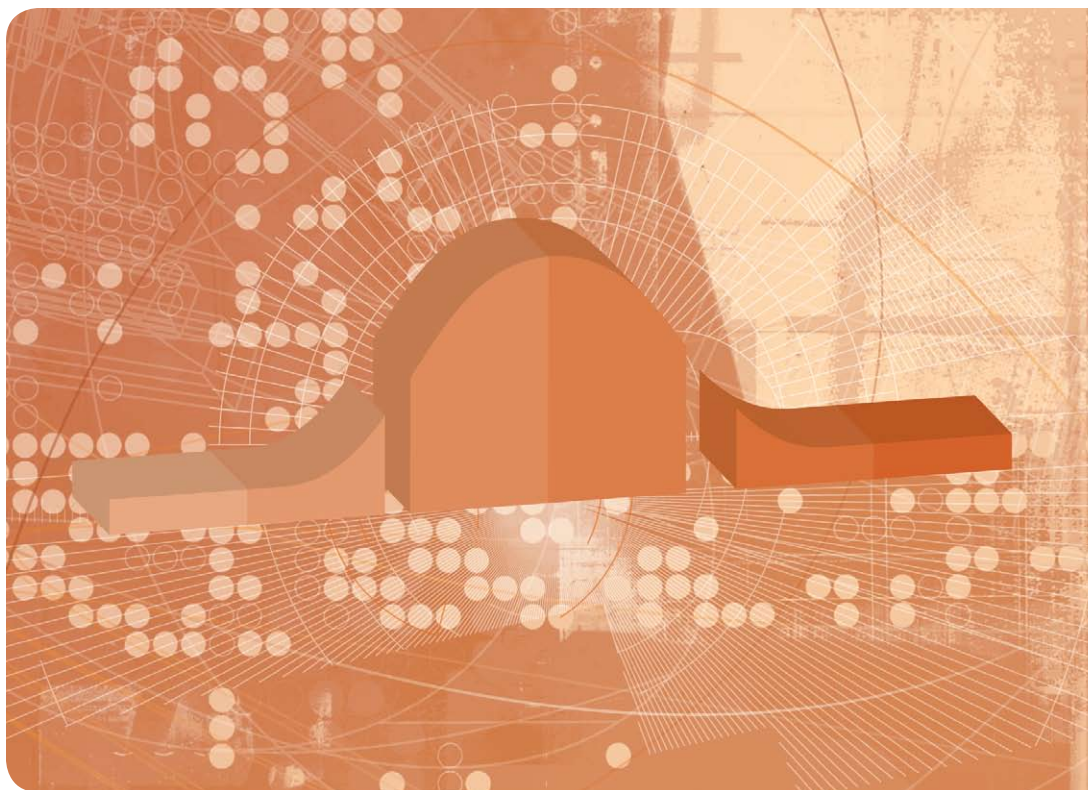


TDWI RESEARCH

2007 TDWI BI BENCHMARK REPORT

By Wayne W. Eckerson



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About the Author

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Executive Summary

This year's *TDWI BI Benchmark Report* evaluates interim results from TDWI's Benchmark Service, a 55-question survey based on TDWI's BI Maturity Model that enables respondents to assess the maturity of their BI programs. The service includes an interactive online chart that enables users to compare their benchmark scores in eight categories to those at other companies and filter the results by revenues, industry, geography, BI scope, and BI budget.

Maturity Levels. A whopping two-thirds (64%) of the 1,128 people who have completed the assessment as of October 1, 2007, scored in the Teenager stage of the TDWI BI Maturity Model. Another 19% scored in the Child stage, and 15% in the Adult stage. Only 2% scored in either the Infant or Sage stage. Clearly, most organizations are in the midst of BI "adolescence" and undoubtedly feel the pain of growing their BI solution into a strategic, mission-critical resource.

Among the 55 questions in the assessment, four showed strong correlation to BI maturity: (1) development methodology (i.e., standards for developing, testing, and deploying BI functionality), (2) perceptions of success (as defined by the respondent), (3) technology and tools standards, and (4) governance processes. In addition, we tested several demographic variables and found that the age of the BI initiative, number of BI staffers, and size of a BI budget are good indicators of BI maturity, while organizational size measured by revenues is not.

Categories of Maturity. Within the eight categories of the TDWI Maturity Model, organizations scored highest in architecture, scope, and value, but least well on data, funding, and delivery. Analyzing the high and low scores within the categories reveals many interesting trends. For example, while organizations have relatively unified BI architectures, they have plenty of work to do to achieve consensus about the definitions of key terms and metrics among business users. In addition, although most organizations are using an enterprise approach to BI, the penetration of BI capabilities among potential users is still low. The reason for this surfaced in the value category, which shows that power users find significantly more value in their BI programs than casual users.

The sponsorship category showed that many organizations still have only a single BI sponsor who is highly committed to the project. On the data side, most users trust the data in their reports, but most BI teams have yet to integrate unstructured data within their BI environments. Funding also proved challenging, with low scores for all questions in this category. Finally, scores for delivery (i.e., reporting/analysis) were the lowest of all categories, bogged down by the lack of BI extranets and business metadata, and by the fact that most organizations have yet to apply BI to monitor and execute business processes and predict outcomes.

Purpose and Approach

TDWI's annual *BI Benchmark Report* allows BI/DW teams to compare themselves to their peers on a series of organizational and performance metrics. TDWI uses the term *BI* in a global sense: BI represents the processes, tools, and technologies that enable organizations to turn data into information and information into knowledge to improve decision making and planning. As such, BI encompasses data warehousing, data integration, and reporting and analysis disciplines.

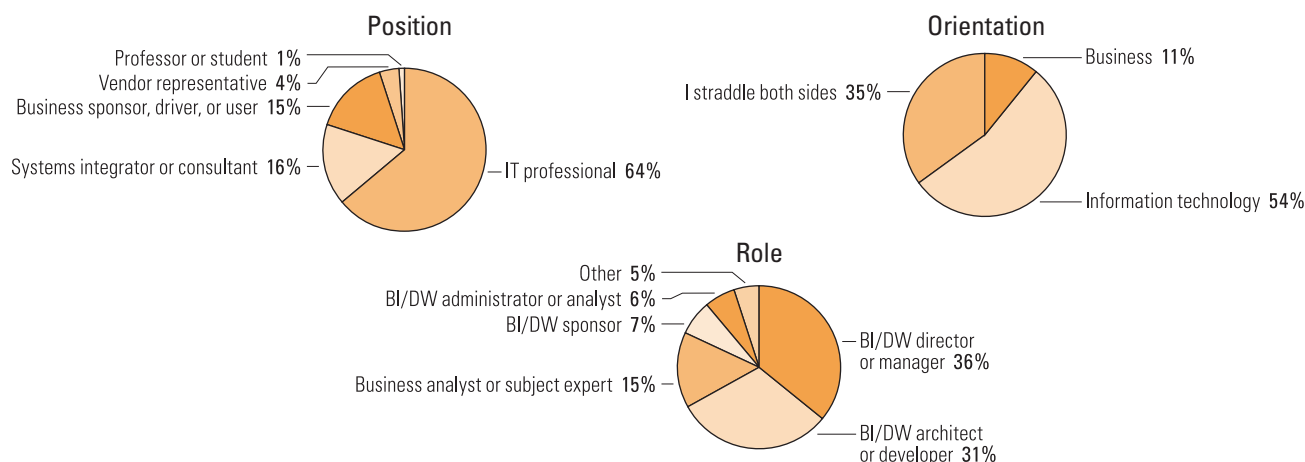
Last year, the report was based on a survey of BI directors that measured a variety of processes involved in managing a BI environment, ranging from team size and number of full-time staff per BI role to BI organizational structure and scope to number of man-hours required to build a single subject area.

This year, however, the *BI Benchmark Report* is based on a new TDWI Benchmark Assessment service that TDWI launched in August 2007. The free service consists of a 55-question survey that measures an organization's BI maturity in eight categories: scope, funding, sponsorship, value, architecture, data, development, and delivery. Individuals who took the survey, which ran from August to December 2007, could access an online report that enabled them to compare their scores to others and filter the results by company, geography, scope, and other variables.

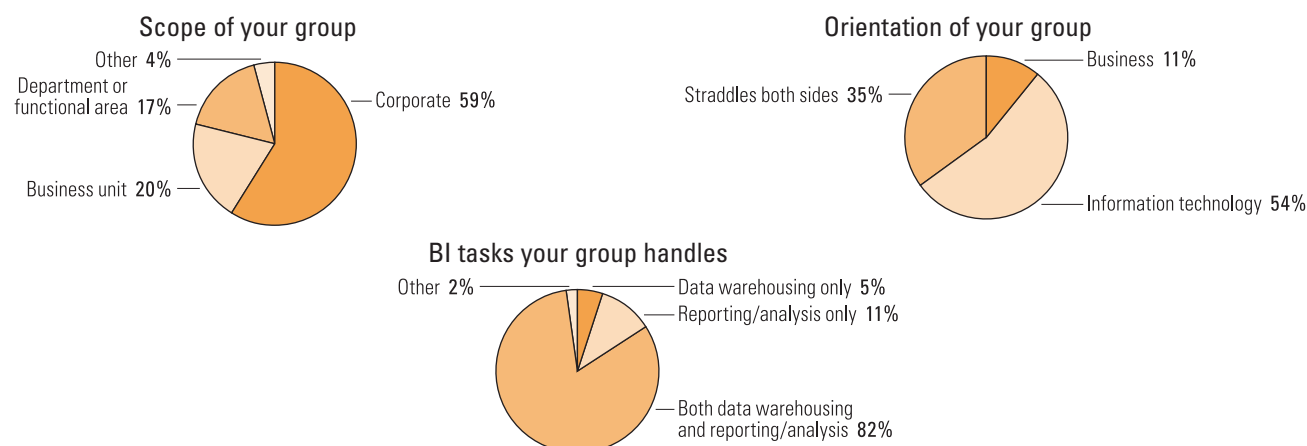
This report is based on results of the TDWI Benchmark Assessment service as of October 1, 2007. At that time, 1,128 individuals had completed the survey and several hundred more were in process. Rounding and multi-choice questions account for percentage totals that do not equal 100%.

Demographics

The majority of respondents who completed the TDWI Benchmark Assessment are IT professionals in the U.S. who are BI program/project managers or architects. One-third (34%) said they "straddle both IT and business."



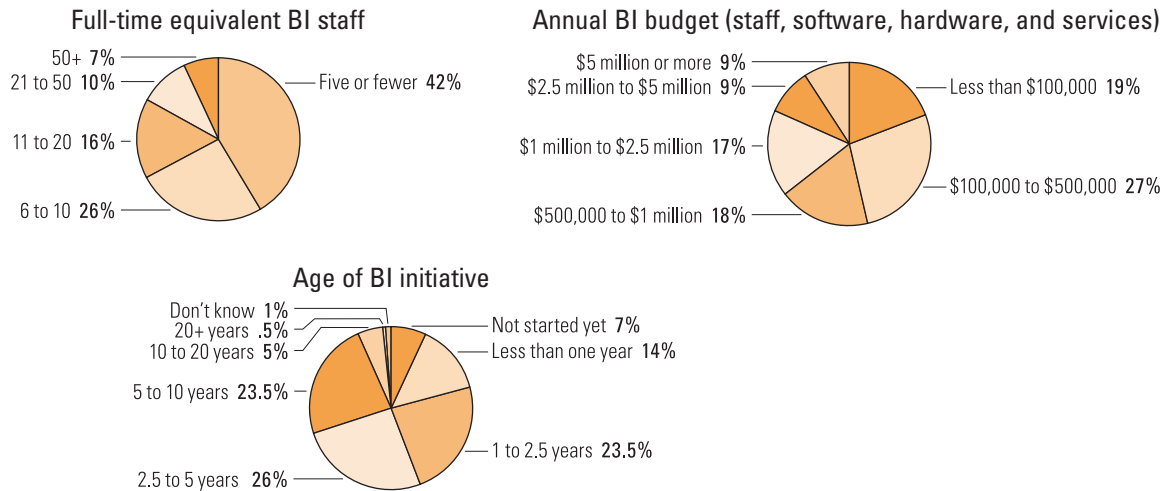
Groups. Most individuals who responded to our survey work in a corporate or enterprise IT group that supports both data warehousing and business intelligence tasks.



The lion's share of respondents work on small teams with five or fewer full-time equivalent staff (42%), have a BI/DW budget of less than \$500,000 (46%), and began their BI initiative less than 2.5 years ago (45%).

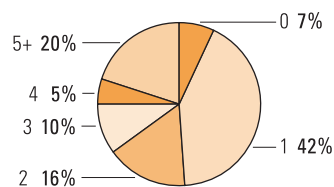
The small size and newness of the BI initiatives among respondents suggest two things:

- (1) the BI market is still growing, and many companies are just beginning their BI journey;
- (2) the benchmarking survey may have attracted a disproportionate number of BI newcomers.

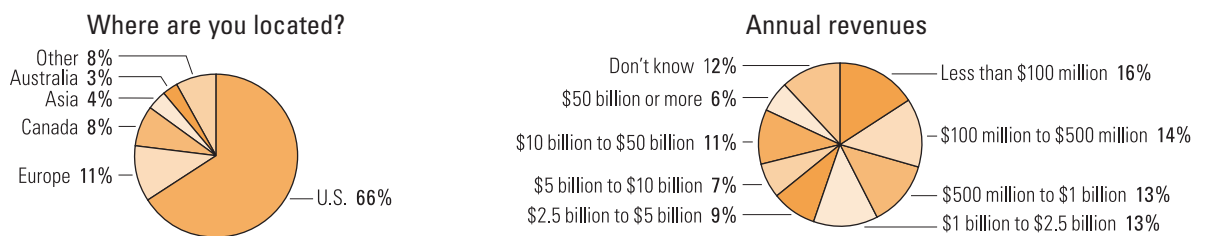


The largest percentage of respondents (42%) say their organization has only one BI/DW group, but the next largest percentage (20%) say their organization supports five or more BI/DW groups. Additional analysis showed that organizations with five or more BI/DW groups were overwhelmingly larger in size, with revenues exceeding \$2.5 billion. This makes sense, as bigger organizations have more business units and people who need BI capabilities. Basically, big organizations with lots of business units spawn lots of distinct BI groups.

Distinct BI groups in your organization overall



Companies. Most of the respondents work in the U.S. (66%) for companies in a range of industries and with a range of revenues. The financial services (13%) led all industries, followed by consultancies (12%), manufacturing (9%), healthcare (8%), insurance (7%), and retail (7%).



TDWI BI Maturity Model and Assessment

The TDWI Benchmark Assessment service, mentioned earlier, measures the maturity of a BI/DW program in an objective way across the dimensions of people, process, and technology.

The service is based on TDWI's BI Maturity Model, which consists of five stages: Infant, Child, Teenager, Adult, and Sage. There are also two major obstacles: the Gulf, which occurs between the Infant and Child stages, and the Chasm, which occurs between the Teenager and Adult stages. As organizations progress through the stages, they reap greater business value from their BI investments and achieve greater consistency in the way they define shared terms and metrics. The key elements of TDWI's BI Maturity Model are illustrated in Figure 1. (For a more in-depth analysis of the TDWI Maturity Model, take the TDWI Benchmark Assessment and download the Benchmark Guide.)

TDWI's BI Maturity Model—User Adoption Curve

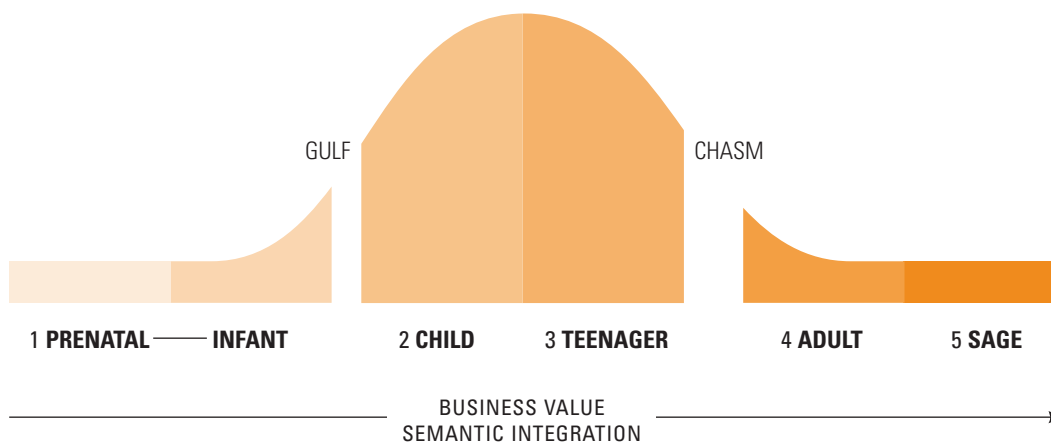


Figure 1. A representation of the five stages of the TDWI Maturity Model, including the Gulf and Chasm. The "y" axis or bell curve depicts the percentage of organizations in any given stage. In 2004, I estimated that a majority of organizations were stuck in BI adolescence between the Gulf and the Chasm.

The Benchmark Survey has 40 questions in eight categories that represent dimensions of the BI Maturity Model. Each category contains five questions. (There are also 15 demographic questions used for filtering.)

The eight categories are:

1. **Scope.** To what extent does the BI/DW program support all parts of the organization and all potential users?
2. **Sponsorship.** To what degree are BI/DW sponsors engaged and committed to the program?
3. **Funding.** How successful is the BI/DW team in securing funding to meet business requirements?
4. **Value.** How effectively does the BI/DW solution meet business needs and expectations?
5. **Architecture.** How advanced is the BI/DW architecture, and to what degree do groups adhere to architectural standards?

- 6. Data.** To what degree does the data provided by the BI/DW environment meet business requirements?
- 7. Development.** How effective is the BI/DW team’s approach to managing projects and developing solutions?
- 8. Delivery.** How aligned are reporting/analysis capabilities with user requirements, and what is the extent of usage?

Scoring. Each question in the eight categories has five answer choices. Each answer represents a different level in TDWI’s BI Maturity Model and is weighted from 1 to 5, with 1 representing the Infant stage and 5 representing the Sage stage. Table 1 maps question scores to maturity levels.

SCORE	STAGE
1	Infant
2	Child
3	Teenager
4	Adult
5	Sage

Table 1. TDWI maturity scale for individual questions

Category Scores. Individuals who took the survey received a score for each category that represents the sum of the weightings for the five questions in that category. Thus, for each category, respondents receive a score between 5 and 25. Table 2 shows the mappings between scores and category maturity levels.

SCORE	STAGE
5 to 7.5	Infant
7.5 to 12.5	Child
12.5 to 17.5	Teenager
17.5 to 22.5	Adult
22.5 to 25	Sage

Table 2. TDWI maturity scale for categories and overall scores. Scores that fall on the dividing line between two stages statistically are grouped with the higher stage.

Overall Scores. To determine an organization’s overall BI/DW maturity, we sum the weighted scores of all questions and divide by eight. We calculate the overall scores of all respondents in much the same way: we sum the weighted scores of all questions for all respondents divided by the total number of all respondents divided by eight. We can use the same scale in Table 2 to assess the maturity based on overall scores.

Stage Profiles

This section profiles organizations in the Child, Teenager, and Adult stages. It highlights characteristics of organizations in each stage using eight variables. The first four are demographic variables included in the Benchmark Assessment survey:

- Company size
- Age of BI initiative
- BI budget
- Size of BI staff

Some of these variables correlated with overall maturity scores, but some did not. We did not analyze all demographic questions in the survey, including BI scope, industry, and location, because the frequency distribution of the results to these questions did not lend themselves to analysis.

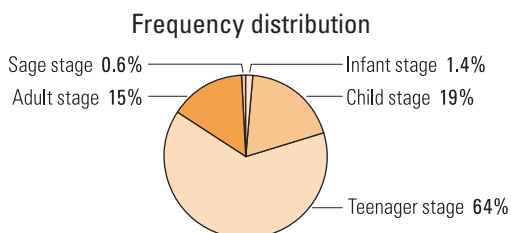
The second set of variables was drawn from the 40 weighted questions that were used to calculate an organization's overall score. The four selected had the most significant effect on overall scores, according to statistical calculations. In rank order, they are:

- Development methodology
- Success rating
- Technology standards
- Governance processes

Other variables that had a moderate effect on BI maturity were: degree of capital investment, annual maintenance budget, data warehousing architecture, standards for defining key terms and metrics, implementation status, adherence to technology standards, and degree to which users can access data from a single interface.

Demographic Variables

Overall Distribution. The vast majority of individuals who have taken the TDWI Benchmark Assessment are in the Teenager stage (64%). Another 19% are in the Child stage and 15% are in the Adult stage. About 2% fall in the Infant or Sage stages, a number too small to analyze with statistical reliability.



Revenues. It appears that size of a company as measured by company revenues has minimal effect on the maturity of an organization's BI program. There is some deviation between Child and Adult stage companies in three revenue brackets (\$100 million or less, \$1 billion to \$2.5 billion, and \$10 billion to \$50 billion), but the differences across the spectrum are fairly minimal. (See Table 3.) This is somewhat surprising, since larger organizations presumably have more money, people, and expertise to draw on to deliver successful BI projects. Obviously, bigger doesn't mean more mature!

What are the annual revenues of your organization?

	Child	Teenager	Adult	All
Less than \$100 million	19%	15%	10%	16%
\$100 to \$500 million	17%	15%	13%	14%
\$500 million to \$1 billion	13%	12%	15%	13%
\$1 to \$2.5 billion	11%	12%	20%	13%
\$2.5 to \$5 billion	8%	9%	7%	9%
\$5 to \$10 billion	6%	7%	7%	7%
\$10 to \$50 billion	7%	10%	15%	11%
\$50 billion or more	5%	6%	7%	6%
Don't know	14%	4%	7%	12%

Table 3. There is little correlation between company size and BI maturity.

Age of BI Program. If revenues don't predict BI maturity, age of a BI initiative does. More than two-thirds (68%) of organizations that score in the Child stage have BI programs that are less than 2.5 years old, whereas 78% of Adult stage BI programs have existed for more than five years. Just as in human development, maturity comes with age. No surprise there.

However, it's interesting to note that 30% of BI programs in the Child stage have been in existence for more than 2.5 years, and 30% of programs in the Teenager stage have existed for more than five years. Thus, some organizations excel at prolonging their childhood or adolescence. Like kids, some BI programs just don't want to grow up!

How long ago was your group's BI initiative started?

	Child	Teenager	Adult	All
Not started yet	20%	3%	1%	7%
Less than one year	24%	13%	4%	14%
1 to 2.5 years	24%	24%	17%	24%
2.5 to 5 years	20%	28%	28%	26%
5 to 10 years	9%	26%	38%	24%
10 to 20 years	1%	4%	10%	5%
20+ years	—	—	2%	1%
Don't know	2%	1%	1%	1%

Table 4. Most Adult-stage BI organizations have existed for more than five years.

Staff Members. More than two-thirds of BI teams today (68%) have 10 or fewer full-time equivalent staff members, while 42% have fewer than five staff members. So, most BI teams are relatively small.

However, size of a BI team is a good indicator of BI maturity. More than two-thirds (69%) of organizations in the Child stage have five or fewer full-time equivalent staff members, which is a sizable percentage compared to organizations in the Teenager and Adult stages. Surprisingly, a relatively equal percentage of organizations in the Child (21%), Teenager (27%), and Adult (24%) stages have six to 10 staff members. Thus, Child-stage organizations don't need to add too many more team members to join ranks with their more mature BI brethren.

However, one-quarter of Adult stage organizations (25%) have between 11 and 20 staffers, while more than a third (34%) have greater than 21 full-time staffers. Thus, while a small team doesn't prevent an organization from having a mature BI program, a big team usually indicates a high level of maturity.

How many full-time equivalent BI/DW staff members does your group maintain (including contractors)?

	Child	Teenager	Adult	All
5 or fewer	69%	40%	17%	42%
6 to 10	21%	27%	24%	26%
11 to 20	6%	17%	25%	16%
21 to 50	3%	10%	16%	10%
51+	1%	6%	18%	7%

Table 5. Larger teams usually indicate high levels of maturity.

BI Budgets. Size of the BI budget has much the same correlation with BI maturity as staffing, which should be no surprise since about half of all budgets are typically spent on labor costs. Thus, organizations with small BI budgets tend to be in the Child stage, while organizations with big BI budgets tend to be in the Adult stage.

Specifically, 42% of organizations with a BI budget less than \$100,000 are in the Child stage compared to just 14% and 6% of organizations with the same budgets that are in the Teenager and Adult stages, respectively. Conversely, 61% of Adult-stage organizations have BI budgets greater than \$1 million and 22% have BI budgets greater than \$5 million. In BI, as in most of IT, the rich get richer, and the poor simply have to prove themselves first before they get money!

What is your group's annual BI/DW budget, including staff, software, hardware, and services?

	Child	Teenager	Adult	All
Less than \$100,000	42%	14%	6%	19%
\$100,000 to \$500,000	29%	30%	16%	27%
\$500,000 to \$1 million	15%	19%	18%	18%
\$1 million to \$2.5 million	8%	19%	24%	17%
\$2.5 million to \$5 million	4%	9%	15%	9%
\$5 million or more	2%	8%	22%	9%

Table 6. Organizations with small BI budgets tend to be in the Child stage, while organizations with big BI budgets tend to be in the Adult stage.

OTHER VARIABLES

Development. Establishing standards for developing BI functionality, such as ETL code and reports, is a key characteristic of mature BI programs. The lack of such standards is a hallmark of less mature programs. The data shows that 87% of organizations that scored in the Child stage either have no development standards or very few. In contrast, 73% of Adult-stage organizations have established most or all of the standards needed to develop BI functionality.

While we often talk about the importance of getting sponsorship and funding for a BI program, ultimately, the BI team must deliver in the trenches to be successful. While we take this for granted, it is a key driver of success. Or perhaps it's more correct to say that without a strong development culture and set of practices for building applications, then sponsorship, funding, architecture, and so on matter very little. In other words, an IT shop has to be good at the fundamentals to succeed.

To what degree has your group defined, documented, and implemented standards for developing, testing, and deploying BI/DW functionality (i.e., ETL code and BI reports)?

- Very low:** Our group has not established BI/DW standards
- Low:** Our group has established some standards
- Moderate:** Our group has established about half the standards needed
- High:** Our group has established most BI/DW standards
- Very high:** Our group has established a comprehensive set of BI/DW standards

	Child	Teenager	Adult	All
Very low	46%	6%	—	13%
Low	41%	30%	3%	28%
Moderate	11%	41%	24%	33%
High	1%	21%	54%	22%
Very high	—	2%	19%	4%

Table 7. A BI team must be good at development to succeed.

Success. When asked to judge the success of their groups' BI/DW programs, respondents answered honestly. More than half (55%) of those who scored in the Child stage said their BI program has "momentum but needs to prove itself," which is indicative of Child-stage programs. Meanwhile, 76% of Adult stage companies said their BI programs deliver "significant business value and is considered a success." And 49% of Teenager organizations said their BI programs "deliver some business value but is not yet considered a success." People seem to be good judges of their own programs' maturity.

Which best describes the success of your group's BI/DW program?

Very low: It's in trouble and may not survive

Low: It has momentum but needs to prove itself

Moderate: It delivers some business value but is not yet considered a success

High: It delivers significant business value and is considered a success

Very high: It delivers a very high degree of business value and is considered a runaway success

	Child	Teenager	Adult	All
Very low	14%	1%	—	4%
Low	55%	21%	3%	25%
Moderate	27%	49%	8%	39%
High	3%	27%	76%	29%
Very high	—	1%	13%	3%

Table 8. BI professionals who rated their programs a success scored high on the BI maturity assessment.

Standards. There is also a strong correlation between standards and maturity. Organizations that have established standards for BI technology and tools are much more likely to have a high degree of maturity. For example, 58% of Adult-stage organizations have defined “most” of the standards and 26% have defined “all.” In contrast, almost a third (30%) of Child-stage organizations have “not defined” standards and 43% have only defined “some.”

Obviously, setting standards requires that you have an active program that has been underway for some time, is growing, and perhaps needs to align with enterprise architecture standards. So standards imply a certain degree of experience and maturity, which is why organizations that are just starting their BI journey have little to report on the standards front.

To what degree have you established standards for technology and tools in your BI/DW environment?

Very low: We have not defined standards

Low: We have defined some standards

Moderate: We have defined about half the standards

High: We have defined most of the standards

Very high: We have defined all standards

	Child	Teenager	Adult	All
Very low	30%	3%	—	8%
Low	43%	19%	2%	22%
Moderate	21%	40%	15%	32%
High	5%	34%	58%	32%
Very high	—	4%	26%	6%

Table 9. Mature BI programs have established technology standards for BI.

Governance. Governance is critical to moving from an ad hoc, project-based approach to BI to a program-based approach that manages multiple projects according to a long-term road map. Thus, it's no surprise that 49% of organizations that scored in the Child stage have “very low” governance where disparate groups are implementing ad hoc BI projects. It's also no surprise that 43% of Adult-stage organizations scored “high” in this category, and 18% have a formal BI/DW governance process that prioritizes investments across all groups.

To what degree does your program have processes in place to plan, prioritize, and adjust its BI/DW investments and resolve conflicts?

Very low: Every BI/DW group does its own thing with its own resources

Low: Between very low and moderate

Moderate: Every BI/DW group competes for corporate resources through the budgeting process

High: Between moderate and very high

Very high: BI/DW groups come together to prioritize investments within a formal BI/DW governance process

	Child	Teenager	Adult	All
Very low	49%	9%	1%	15%
Low	35%	27%	5%	25%
Moderate	16%	47%	34%	39%
High	1%	14%	43%	15%
Very high	—	3%	18%	5%

Table 10. Mature BI programs have established a governance process for prioritizing BI investments.

Maturity Scores

The results of TDWI maturity assessment indicate that BI programs are, on the whole, smack in the middle of BI adolescence. (See Table 11.) The average overall score is 14.62, which places our respondents halfway within the Teenager phase and fast approaching, if not already mired in, the Chasm.

Category	Score	Maturity Level
1. Architecture	15.33	Teenager
2. Scope	15.10	Teenager
3. Value	14.80	Teenager
4. Development	14.79	Teenager
5. Sponsorship	14.60	Teenager
6. Data	14.70	Teenager
7. Funding	14.10	Teenager
8. Delivery	13.62	Teenager
OVERALL	14.62	Teenager

Table 11. Average maturity scores by category in descending order

BI Adolescence. On average, organizations are at the Teenager stage of BI maturity. If you have an honest recollection of your adolescence, you'll remember that it was full of turmoil: your best friends became your worst enemies overnight, your parents went from demigods to total embarrassments, and your bodies were spinning out of control. Basically, your life spiraled from one crisis to the next. This is not too different from most BI programs today: BI managers spend most of their time putting out fires, corralling key analysts to work on projects, and persuading executives not to axe the BI budget, among other things. Most BI managers at these organizations will admit that there is a big gap between their vision for what BI could be in their organizations and the reality of what it is today.

The graphical depictions of the TDWI Maturity Model portray the Adult and Sage stage as the end stage. Unfortunately, this is a limitation of the graphical nature of the model. In reality, once an organization enters the Adult stage, it has earned a ticket to play in the BI game. With strong business sponsorship, funding, and alignment across the enterprise, a unified architecture, and a robust BI delivery platform, the Adult stage organization is now simply ready to deliver on the promise of BI. Not until the Adult stage can organizations exploit BI as a strategic resource that can drive the organization and create a competitive wedge in the marketplace.

1. Architecture

Table 11 also shows that organizations scored highest in the Architecture category. Given the preponderance of IT professionals who took the survey, this makes sense: BI architecture is the one thing that IT professionals have total control over within a BI project. Almost everything else depends heavily on non-IT people to make happen, especially sponsorship, funding, and value.

Within the Architecture category, the question that scored highest (3.4), which is at the upper range of the Teenager stage, focused on type of architecture. (See below.) This question also had the fifth highest score among all 40 survey questions. This suggests that organizations have created data warehouses and that many have a single enterprise data warehouse architected in accordance with one of the predominant approaches to data warehousing.

What is the predominant architecture of your DW environment? (Weights in parentheses)

- (1) Desktop- or user-generated reports (i.e., spreadmarts)
- (2) Multiple, nonintegrated data marts or packaged solutions
- (3) Multiple, nonintegrated data warehouses
- (4) A single central DW with multiple dependent marts (i.e., Inmon), conformed marts (i.e., Kimball), or no marts
- (5) A BI/DW service that federates a central DW and other data sources via a standard interface

Average score: 3.4 of 5 **Overall rank:** 5 of 40

Interestingly, the Architecture category also had a question about data definitions that had one of the lowest scores (2.6), ranking it ninth from the bottom. Getting consensus among business users about the meaning of common terms, such as “customer,” “sale,” or “profit” is challenging. Achieving success here requires more political savvy than technical know-how and strong commitment from high-level executives to make happen.

To what degree has your group defined, documented, and implemented definitions and rules for key terms and metrics? (Weights in parentheses)

- | | |
|---------------------------------|---------------------------|
| (1) Very low—none defined | (4) High—most defined |
| (2) Low—some defined | (5) Very high—all defined |
| (3) Moderate—about half defined | |

Average score: 2.6 of 5 **Overall rank:** 32 of 40

2. Scope

The Scope category had an even wider spread among scores for questions than the Architecture category. There were two Scope questions that ranked in the top 10 and two in the bottom 10. The upshot is that while most organizations have deployed BI on an enterprise basis (see the first two questions below), the usage of BI is restricted to a narrow set of users and applications (note the last two questions below).

How many different departments or functional areas does your group’s BI/DW environment support? (Weights in parentheses)

- | | |
|-------|--------|
| (0) 0 | (3) 3 |
| (1) 1 | (4) 4 |
| (2) 2 | (5) 5+ |

Average score: 3.8 of 5 **Overall rank:** 3 of 40

Which best describes the scope of your group’s BI/DW environment? (Weights in parentheses)

- (1) Individual—Users largely fend for themselves—no effective BI/DW support
- (2) Department (local)—Single department within one business unit
- (2) Department (enterprise)—Single department across most or all business units
- (3) Business unit—Most or all departments within a business unit
- (4) Enterprise—Most or all business units within an organization
- (5) Inter-enterprise—Most or all departments and business units plus most or all customers and suppliers

Average score: 3.4 of 5 **Overall rank:** 7 of 40

The lack of penetration of BI within the general user population is startling. This data suggests that adoption hovers between 20% and 40% of all users. However, the rate of penetration is improving, since three years ago it was 19%, according to TDWI Research.

What percentage of all employees that your group is charged with supporting either use your group’s BI/DW environment or consume its output? (Weights in parentheses)

- | | |
|---------------|----------------|
| (1) 0 to 20% | (4) 60 to 80% |
| (2) 20 to 40% | (5) 80 to 100% |
| (3) 40 to 60% | |

Average score: 2.2 **Overall ranking:** 37 of 40

Anecdotally, we came across very mature, strategic BI environments that support 50+ mission-critical applications (i.e., collections of reports that support a specific process or business function). If the average number of applications supported ranges between three and 10, as this data suggests, then most organizations are still in the early stages of BI.

How many applications does your BI/DW environment support?

- | | |
|------------|--------------|
| (0) 0 | (3) 6 to 10 |
| (1) 1 to 2 | (4) 11 to 20 |
| (2) 3 to 5 | (5) 21+ |

Average score: 2.6

Overall ranking: 33 of 40

3. Value

The Value scores were spread evenly across the four quartiles of ranked questions. Two questions about the success and value of the BI program scored similarly (3.0). In other words, the BI program “delivers some business value but is not yet considered a success” and “quantifiable returns equal costs.” Consequently, most organizations tend to justify the BI program using intangible benefits to a large degree, as evidenced by the lowest-ranking Value question below.

Which best describes the type of benefits used to justify your BI/DW investments?

- (1) Primarily intangible benefits
- (2) Mostly intangible benefits, some tangible benefits
- (3) Equal intangible and tangible benefits
- (4) Mostly tangible benefits, some intangible benefits
- (5) Primarily tangible benefits

Average score: 2.6

Overall ranking: 34 of 40

The big revelation in the Value category is the discrepancy between the value that power users and casual users derive from the BI environment. Power user scores reached the Adult level (3.6), while casual user scores registered an entire point or maturity level lower (2.7). Most organizations first deploy BI to power users, who also tend to serve on the committees that select the tools. This effectively forestalls the development of BI capabilities for casual users, who typically represent 80% of the user population at the organization. This discrepancy also accounts for the poor scores in the Delivery category.

How do power users and casual users perceive the value of the BI environment?

- | | |
|--|---|
| (1) Irrelevant to their jobs; a time waster | (4) Critical to their jobs; excellent value |
| (2) Tangential to their jobs; marginal value | (5) A key to success; superior value |
| (3) Relevant to their jobs; good value | |

Power user score: 3.6

Overall ranking: 4 of 40

Casual user score: 2.7

Overall ranking: 29 of 40

4. Development

The scores for developing BI reports and applications were fairly high, with one exception: the number of projects that teams run concurrently scored 2.4, ranking 36 out of 40 questions. A 2.4 score, however, indicates that teams are running between two and three concurrent projects that last at least three months or more, which implies a big enough staff to support the projects, a specialized staff that handles ETL and reporting projects separately, or an overloaded staff working on multiple projects at once. (I suspect the latter, given the overall results of this assessment!)

At the same time, the highest-scoring Development question focused on the time required to develop a new subject area. This includes everything from capturing user requirements and analyzing source systems to modeling or revising target models, developing ETL rules and routines, creating or revising reports, testing, deploying, and training users. The score for this question was 3.4, which indicates organizations are spending about six months on average to perform these tasks. Anecdotally, we’ve found that the leading adopters can accomplish these tasks in three months using five people.

On average, how many BI/DW projects that last three or more months does your group run concurrently?

(0) 0	(3) 3
(1) 1	(4) 4
(2) 2	(5) 5
Average score: 2.4 Overall ranking: 36 of 40	

How long does it take to add a new subject area to your BI/DW environment? (Definition was provided)

(1) 12+ months	(2) 3 to 6 months
(2) 9 to 12 months	(1) 3 months or less
(3) 6 to 9 months	
Average score: 3.4 Overall ranking: 6 of 40	

5. Sponsorship

Ranking fifth in overall scoring, sponsorship needs to improve for BI programs to succeed. However, the highest scoring Sponsorship question is perhaps the most critical: “To what degree is your sponsor committed to the BI/DW program?” This question scored in the top quartile with a 3.3 average. Past TDWI Research has shown a strong correlation between the degree of commitment by a sponsor and program success. The results for another Sponsor question—“Which best describes your sponsor?”—which scored 2.9, indicates that most programs have a single sponsor rather than multiple cross-functional sponsors or multiple levels of steering committees, which are a hallmark of successful programs.

To what degree is your sponsor committed to the BI/DW program?

(1) Very low	(4) High
(2) Low	(5) Very high
(3) Moderate	
Average score: 3.3 Overall ranking: 9 of 40	

Which best describes your sponsor?

- (1) None to speak of right now
- (2) CIO or IT director
- (3) Single sponsor from a business unit or department
- (4) Multiple individual sponsors from multiple business units or departments
- (5) Multiple levels of business-driven, cross-departmental steering committees

Average score: 2.9 **Overall ranking:** 20 of 40

The lowest scoring Sponsorship question focused on processes to prioritize and plan BI investments and resolve conflicts. Establishing governance processes is a hallmark of a later-stage BI program so it's not surprising given the overall results that this question would score lower than most other questions (2.7).

To what degree does the BI/DW program have processes in place to plan, prioritize, and adjust its BI/DW investments and resolve conflicts?

- (1) Very low—Every BI/DW group does its own things with its own resources
- (2) Low—Between very low and moderate
- (3) Moderate—Every BI/DW group competes for corporate resources through the budgeting process
- (4) High—Between moderate and very high
- (5) BI/DW groups come together to prioritize investments within a formal BI/DW governance process

Average score: 2.7 **Overall ranking:** 31 of 40

6. Data

Scores for questions in the Data category were generally high except the question which asked for the degree to which the group had integrated unstructured data within the BI environment. That question scored the lowest of all questions on the survey (1.8), showing that most organizations have not yet thought about the value or possibilities of integrating unstructured data.

To what degree has your group integrated unstructured data (e.g., text or documents) in the BI/DW environment?

- (1) Very low—No plans or approach
- (2) Low—Between very low and moderate
- (3) Moderate—Users can search text and documents via a separate (non-BI) application
- (4) High—Between moderate and very high
- (5) Very high—We return related structured and unstructured data in a single query

Average score: 1.8 **Overall ranking:** 40 of 40

The questions that had the highest overall average in the Data category focused on the trustworthiness and freshness of the data. While these two questions scored in the top quartile, the results show that most organizations have gotten their users to trust the data without having to reconcile it against other sources and that the majority of data elements are refreshed at least weekly. These are steps in the right direction.

To what degree do end users trust the data in your BI/DW environment?

- (1) Very low—Users don't trust the data. They find too many errors, exceptions, or omissions. They rely on other sources of data to make decisions
- (2) Low—Between very low and moderate
- (3) Moderate—Users somewhat trust the data. They reconcile it with more trusted sources before using.
- (4) High—Between moderate and very high
- (5) Very high—Users trust the data. They view it as the system of record for the company and rely on it for critical decisions

Average score: 3.3 Overall rank: 8 of 40

On average, how often are the majority of data elements in your BI/DW environment refreshed?

- (1) Either annually or quarterly
- (2) Either quarterly or monthly
- (3) Either monthly or weekly
- (4) Either weekly or daily
- (5) Either daily or intraday

Average score: 3.9 Overall ranking: 2 of 40

7. Funding

All but one of the five Funding questions landed in the third quartile for average scores. Obviously, obtaining and sustaining funding for BI programs is challenging. These scores indicate that on average BI programs are funded at a rate slightly less than IT is funded, and BI programs represent between two and five percent of the overall IT budget. In terms of budgeting, BI programs have received initial, but not subsequent, outlays to fund projects. Maintenance budgets don't fully cover all requested programs.

How easy is it to get funding for your group's annual BI/DW budget?

- (1) Very hard—Our budgets get cut before other IT projects
- (2) Hard—Between very hard and moderate
- (3) Moderate—We are usually funded at a rate comparable to the rest of IT
- (4) Easy—Between moderate and very easy
- (5) Very easy—With our demonstrated track record, we usually get what we ask for

Overall score: 2.7 Overall rank: 28 of 40

The annual BI/DW budget for your group represents approximately what percent of the annual IT budget for your group?

- (0) 0%
- (1) 1%
- (2) 2 to 3%
- (3) 4 to 5%
- (4) 6 to 10%
- (5) 11% or more

Average score: 2.8 Overall ranking: 25 of 40

8. Delivery

Finally, we get to the lowest-scoring category, which focuses on reporting and analysis capabilities. Oddly, this category had three of the six questions with the lowest overall average scores, but also had the question with the highest score: the ratio of power users to casual users. In the latter question, the score of 4.1 shows that on average organizations have 40% power users and 60% casual users. This is close to the 20:80 rule of thumb for the ratio for power users to casual users.

This category was bogged down by questions about providing BI for customers and suppliers, providing robust metadata, and using BI to monitor and execute business processes and predict outcomes. Basically, most organizations have yet to do any of these things!

Which most closely reflects the ratio of power users to casual users in your BI/DW environment?

- | | |
|---------------------------------------|---------------------------------------|
| (1) 100% power users | (4) 40% power users, 60% casual users |
| (2) 80% power users, 20% casual users | (5) 20% power users, 80% casual users |
| (3) 60% power users, 40% casual users | |

Average score: 4.1 **Overall ranking:** 1 of 40

What percentage of your customers and suppliers consume content generated by your BI/DW environment?

- | | |
|---------------|----------------|
| (1) 0 to 20% | (4) 60 to 80% |
| (2) 20 to 40% | (5) 80 to 100% |
| (3) 40 to 60% | |

Average score: 1.9 **Overall ranking:** 39 of 40

Which best describes how users access business metadata?

- (1) There is no business metadata to access
- (2) Users consult metadata reports that we periodically distribute
- (3) Users query various repositories to access business metadata
- (4) Users query a central repository to access up-to-date business metadata
- (5) Users click once to view integrated, contextual, up-to-date business metadata

Average score: 2.2 **Overall ranking:** 38 of 40

Which best describes the highest level purpose of your BI (i.e., reporting/analysis) environment?

- (1) Delivers paper or online reports for organizational consumption
- (2) Enables users to analyze trends/issues and gain insights on their own
- (3) Monitors business events as they happen and enables proactive responses
- (4) Predicts outcomes, models results, and optimizes plans
- (5) Automates processes and responses, including customer interactions

Average score: 2.4 **Overall ranking:** 35 of 40

Conclusion

The BI Benchmark Assessment provides a treasure trove of data about how organizations evolve their BI programs. The key findings are that two-thirds (64%) of organizations are in the Teenager stage of the TDWI BI Maturity Model, signifying that most organizations are in the midst of BI “adolescence” and are struggling to grow their BI solutions into strategic, mission-critical resources.

The maturity of a BI program is most evident in four areas: (1) development methodology (i.e., standards for developing, testing, and deploying BI functionality); (2) perception of success (as defined by the respondent); (3) technology and tools standards; and (4) governance processes. While perception of success is an outcome indicator, the other three are drivers of program maturity. It behooves organizations to pay special attention to these areas when developing their BI capabilities.

Finally, there is a correlation between the age of a BI program and its maturity. More than two-thirds (68%) of organizations that score in the Child stage have BI programs that are less than 2.5 years old, whereas 78% of Adult-stage BI programs have existed for more than five years. Just as in human development, maturity comes with age. And greater maturity also generally results in larger BI staffs and budgets. Once a BI program proves its merit, the organization enables it to grow in size and expenditures.

About TDWI

The Data Warehousing Institute™ (TDWI), a division of 1105 Media, Inc., is the premier provider of in-depth, high-quality education and research in the business intelligence and data warehousing industry. TDWI is dedicated to educating business and information technology professionals about the strategies, techniques, and tools required to successfully design, build, and maintain business intelligence and data warehousing solutions. It also fosters the advancement of business intelligence and data warehousing research and contributes to knowledge transfer and professional development of its Members. TDWI sponsors and promotes a worldwide Membership program, quarterly educational conferences, regional educational seminars, role-based training, onsite courses, certification, solution provider partnerships, an awards program for best practices, resourceful publications, an in-depth research program, and a comprehensive Web site (www.tdwi.org).

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TDWI Research provides research and advice for BI professionals worldwide. TDWI Research focuses exclusively on BI/DW issues and teams up with industry practitioners to deliver both broad and deep understanding of the business and technical issues surrounding the deployment of business intelligence and data warehousing solutions. TDWI Research offers reports, commentary, and inquiry services via a worldwide Membership program and provides custom research, benchmarking, and strategic planning services to user and vendor organizations.



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