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The Applicability of the Megargee Classification System for the MMPI-A

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ABSTRACT

THE APPLICABILITY OF THE MEGARGEE CLASSIFICATION SYSTEM FOR THE MMPI-A

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Megargee (1977) originally developed a classification system for MMPI profiles for male offenders, and eventually expanded this system to also accommodate the MMPI profiles of female offenders (Megargee, 1992). Recently Megargee expanded and modified this system for use with the MMPI-2 (Megargee, Carbonell, Bohn, and Sliger, 2001). The purpose of the current study was to examine the utility of Megargee's systems as applied to adolescents in correctional facilities based on MMPI-A results. The Megargee classification criteria were modified for the purposes of this study, generally based on quite limited modifications to accommodate the lower profile ratings typically found for adolescents on the MMPI-A. Preliminary analyses found membership percentage rates of all 10-offender types comparable to that of Megargee's adult sample (Megargee, & Dorhout, 1977). Predictive analyses revealed that neither clinical scales nor Megargee classification successfully predicted to various criminal archival outcome variables. The exception to this was membership in the Jupiter, which was found to be significantly related to number of prior offenses and number of prior commitments to the SCDJJ. Limitations of the current study and recommendations for further research are discussed.

This dissertation is dedicated to my family; my mother Peggy, my late father Tom, and my brother Joshua. Thank you all for instilling the love for learning and appreciating the simple fact, that the greatest success is one of happiness. I appreciate ya.

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Cheers!

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CHAPTER I

Introduction

In the modern United States, the ideas of child and juvenile delinquency are fairly recent concepts. The first Juvenile Court was established in Chicago, Illinois by the passage of the Juvenile Court Act in 1899 (Grisso & Schwartz, 2003). The establishment of this court is generally considered the birth of juvenile justice and the beginning of the concept of juvenile delinquency. A group of reformers and advocates known as "child savers" were the developers of this court, and represented a variety of philanthropic and civic organizations (Paola, 2004). They were firm believers in the effectiveness of the criminal justice system, including police, courts, and corrections to supervise children (the state as the parent) and provide legal safeguards (due process).

The establishment of juvenile courts, following the tenets of Chicago, began to spread across the country and was considered as a ready-made solution to juvenile misconduct. By 1925, all but two states had juvenile courts, often known as "family" or "probate" courts (Rosenheim, Zimring, Tanenhaus, and Dohrn, 2002). With few exceptions, all juvenile courts followed the Chicago model, which was popularized as the "best interests of the child" or a "focus on the whole child" model (Grisso & Schwartz, 2003). Some essential features of this model included: a special judge who only preside over juvenile proceedings, informality in which proceedings were to be held in offices rather than courtrooms, closed court in which proceedings were not open to the public, and probation used as punishment whenever possible (Rosenheim, Zimring, Tanenhaus, and Dohrn, 2002). While these features became the standard practice of the juvenile court system for

years to come, this model also influenced national attention toward the need for prevention strategies targeted at youthful populations.

In 1968 the U.S. Congress passed the Juvenile Delinquency Prevention and Control Act. This act was designed to encourage states to develop plans and programs that would work on a community level discouraging juvenile delinquency. State programs, which met the criterion of this act, would be funded by federal subsidies aimed at assisting with the implementation of preventative programs. The extensive Juvenile Justice and Delinquency Prevention Act of 1974 replaced the 1968 Prevention and Control Act. By this time, the U.S. had a strong momentum toward preventing juvenile delinquency, initiating such practices as deinstitutionalizing youth within the custody system and keeping juvenile offenders separate from adult offenders. The 1974 act created the following entities at a federal and statewide level: The Office of Juvenile Justice and Delinquency Prevention (OJJDP), The Runaway Youth Program, and The National Institute for Juvenile Justice and Delinquency Prevention (NIJJDP) (Rogers, 1998). These various programs and offices were designed to intervene at the earliest stage in order to prevent the further development of delinquent behaviors and subsequent illegal acts committed by the youth. Much success was seen in the following decade. In the late1980s and mid 1990s however, further measures had to be taken to counteract what was perceived to be a growing societal problem (Rogers, 1998).

Starting in the late 1980s and 90s, the U.S. witnessed an increase in occurrences of juvenile crime. In fact, the frequency and severity of juvenile offenses in 1994 mirrored that of adult criminal acts (Poala, 2004). In response to a fear that juvenile crime was going to continue to rise at this staggering rate, legislatures enacted a measure to get

"Tough on Crime" (Poala, 2004). The 1974 Juvenile Justice and Delinquency Prevention Act was amended to include provisions that would allow states to try juveniles as adults for serious violent crimes and weapon charges. In addition, some states enacted minimum detention standards requiring mandatory sentencing time for more serious felony adjudications. As a result of these changes, the juvenile system became increasingly similar to that of the adult criminal justice system, emphasizing stronger incarceration rather than efforts toward rehabilitation (Poala, 2004).

In the late 1990s, America had a growing concern over highly publicized cases involving violent juvenile crimes. A series of school shootings and other horrendous offenses caused another public fear of a growing new breed of juvenile criminals for whom violence was a way of life. Policy makers and concerned communities expressed the need for "tighter penalties" and more preventative measures (Rosenheim, Zimring, Tanenhaus, and Dohrn, 2002). In response, the OJJDP addressed these concerns in their 2000 Juvenile Justice Bulletin, by acknowledging the threat of juvenile violence and delinquency, but also reporting that the peak in crime was exaggerated by increased media attention (OJJDP, 2000). Nonetheless, such past fears and political movements have shaped and significantly changed the manner in which this country approaches juvenile crime. In hope of developing more effective intervention and prevention strategies, an ever-increasing response has been dedicated to measuring the criminal trends and incarceration rates of the youthful population.

Current trends in the OJJDP

The Office of Juvenile Justice and Delinquency Prevention, one of the entities created by the 1974 juvenile justice act, has spearheaded these efforts. Indeed, since their

conception they have developed a substantial base of empirical data examining the impact of juvenile crime on society as well as juvenile correctional and justice systems. This office offers annual publications providing relatively up-to-date information regarding a comprehensive statistical overview of the problems of juvenile crime, violence, and victimization. Through reporting national trends and statistics on juvenile crime in 1996 and their most recent publication in 2006, the office has used supporting documents and data from previous years to provide an accurate picture of juvenile crime and incarceration in the United States.

In 2004, OJJDP estimated that 2,261,000 arrests of individuals under the age of 18 were made (OJJDP, 2006). These juveniles accounted for 17% of all arrests, and 15% of all violent crime arrests in 2002 (Federal Bureau of Investigation, 1999). As previously mentioned, there has been a substantial growth in violent crime committed by youth that began in the late1980s and peaked in the mid 1990s (Poala, 2004). However, the year 2002 marks the eighth consecutive year of a decline in juvenile arrests for Violent Crime Indexes (VCI) including murder, forcible rape, robbery, and aggravated assault. Particularly, between 1994 and 2002, youthful arrests for VCI offenses declined 47%, resulting in the lowest level since 1980 (OJJDP, 2006). Furthermore, the arrest rate for Property Crime Index (PCI) offenses involving juveniles reached its lowest level since the 1960s (OJJDP, 2006). While these statistical trends are promising, juvenile crime remains a societal problem that affects communities in which the crime was committed, as well as state and local resources.

The complexity of the problem can be felt within statewide juvenile correctional systems. Of the 2,261,000 arrests of juveniles that took place in 2001, 92,160 of those

were for violent crimes, which commonly warrant detainment of some form (FBI, 1999). As of October 1999, 134,011 youth were held in 2,939 private and public juvenile facilities across the country (OJJDP, 2006). This total number is considered a low calculation, given that an estimated 7,600 juveniles were held in adult jails in 2000, and an estimated 4,000 were incarcerated in adult prisons (Bureau of Justice Statistics, 2001). Nonetheless, the overall juvenile offender custody rate in the United States increased 3% from 1997 to 1999, also reflected by a corresponding increase in 30 states (OJDDP, 2004). Further, according to a comparison of the 1991 Children in Custody census and the 1999 Census of Juveniles in Residential Placement, there was a 43% increase in the number of juvenile offenders and 50% increase in the number of youth held for delinquency charges (OJJDP, 2006).

In response to this increasing trend, the number of public and private facilities holding juvenile offenders increased 3% within the past 4 years (OJJDP, 2006). While the contribution of new youth centers in an attempt to accommodate to this trend, many existing facilities are experiencing over-crowding and are using of makeshift resources to cope with increasing admissions. For instance, 36% of juvenile correctional facilities reported that the number of residents they held exceeded the capacity of their standard beds (OJJDP, 2002). Generally, these facilities are public or state-run, housing those juveniles who have been either committed or detained while awaiting adjudication. Although state-run facilities only make up about 17% of all facilities in the nation, they account for 66% of those facilities holding 200 or more juvenile residents (OJJDP, 2002). In an attempt to manage this overcrowding, facility administrations have implemented

more restrictive measures to maintain safety and decrease the potential for incarcerated misconduct (OJJDP, 2002).

Admission screenings

In maintaining safety issues, facilities must also manage security and risk. One way detention centers and smaller correctional institutions are managing risks, is to use restrictive confinement. For instance, 86% of facilities indicated that they lock youth in their sleeping rooms to confine them some of the time, while 90% report the use of locked gates or doors to separate youth within the facilities (OJJDP, 2002). In addition to these relatively crude measures, the larger detention or commitment facilities have began using screening tools to assess for suicide, substance abuse, and/or mental health risks. Sixty-seven percent of facilities reported that they screened juvenile residents for substance use, with the majority (73%) being administered by on-site staff (OJJDP, 2002). Sixty-eight percent of juvenile facilities indicated that they screen all youth for suicide risk, while an additional 18 % reported evaluating some youth. Mental health screenings were similar to the rate of suicide screenings, in that 53% indicated such evaluations were conducted by in-house professionals while an additional 34% reported that both permanent staff and off-site clinicians assessed the youth residents (OJJDP, 2002). Due to the increased nature of risk within correctional facilities, timely assessment is an ever-increasing need. While efforts toward risk identification has increased, acts of severe incarceration misconduct and juvenile safety continues to be a problem (Poala, 2004) .

In 2002, 26 incarcerated youth died while in custody, compared to 30 in 2000 and 45 in 1994 (OJJDP, 2002). Of the 26 deaths, 10 were ruled suicide whereas 8 were

considered homicide or accidental. Youth-on-youth nonconsensual and abusive acts of sexual contact are also targets of timely risk evaluations. In 2004, 2,821 acts of sexual violence in juvenile facilities were reported, 59% being classified as youth-on-youth (BJS, 2004). Of the total allegations of sexual violence, 30% of the cases were substantiated. Comparative data regarding descending trends for sexual violence is pending, given that that the Prison Rape Elimination Act (PREA) was established in 2003. Nevertheless, these occurrences of misconduct have motivated many state and federal agencies in developing more effective ways of determining who is at risk for developing behaviors of concern.

In the past decade, several organizations have developed broad standards for screening and managing youths in detention and correctional facilities (e.g., American Association for Correctional Psychology [AACP], 2000; American Correctional Association, 1991; Council of Juvenile Correctional Administrators, 2001; National Commission on Correctional Health Care [NCCHC], 1999; and the OJJDP, 1994). For instance, the OJJDP (1994) includes recommendations regarding how and when to assess for both emergent risk and more long-ranging service needs (e.g., mental health) among youth in secure care. Similar adult standards appear in the Criminal Justice/Mental Health Consensus (CJMHC) Project (Council of State Governments, 2002). Both juvenile and adult standards generally focus on inmate entry into secure care (whether pre-or post-adjudication) and continue through to community release. Particularly with post-adjudication, or reception screening procedures, these practices are critically important in determining the potential for risk and the need for mental health services shortly after incarceration.

In general, reception screening, particularly with the juvenile justice population, includes use of a short procedure on every inmate arriving at a secure facility to ascertain emergency and triage information for safety concerns (Wasserman, Jensen, Ko, Cocozza, Trupin, Angold, Cauffman, & Gisso, 2003). Due to the simplicity of these instruments, nonclinical staff members with minimal training generally administer them. To counteract difficulties in using non-standardized screening tools, the American Psychiatric Association (APA) Guidelines on Psychiatric Services in Jails and Prisons (APA, 2002) recommends standardizing mental health screening procedures and instruments so that responses can be documented systematically and aggregated across settings. To meet this need, a number of scientifically sound instruments have been developed to meet this brief and standardized procedure for assessing risk and determining further mental health needs. For instance, Youth Self-Report (Achenbach, 1991), the Symptom Checklist-90-Revised (Derogatis, 1977), and the Brief Symptom Inventory (Derogatis, 1993) have been used in juvenile justice populations. In particular, the Massachusetts Youth Screening Instrument-2 (MAYSI-2) was developed as an intake screen for potential mental, emotional, or behavioral problems for justice (Grisso, Barnum, Fletcher, Cauffman, & Peuschold, 2001). While these and other similar instruments provide a simple, safe, and low cost method of obtaining critical information regarding mental health needs, they are limited by their intended purpose and only briefly address the matter of prisoner or detainee "adjustment".

Megargee's classification system and the MMPI

Previous research, particularly with adult populations, had operationally defined prison "adjustment" in a multi-faceted manner, considering the quantity of behavioral

incidences while incarcerated (Megargee, 1972; Megargee & Bohn, 1979; Carbonell, Megargee, & Moorhead, 1984). This may include several different categories of potential behavior as measured by institutional records, such as (1) disciplinary reports and the results of the subsequent disciplinary court hearings; (2) a record of the number of days spent in disciplinary segregation as a result of these infractions; (3) a record of the number of days each inmate reported to sick call; (4) ratings of adjustment in the living units made at 90-day intervals by custodial personnel; (5) ratings of work performance and behavior made by work crew supervisors; and (6) ratings of educational achievement and classroom behavior made by classroom teachers (Carbonell, Megargee, & Moorhead, 1984). Historically, research used such records to classify inmates into categories, which could be subsequently used to identify prisons at risk for institutional misconduct or maladjustment (Hewitt & Jenkins, 1947; Glueck & Glueck, 1956; Gibbons & Garrity, 1962; Warren & Palmer, 1965; Roebuck, 1967; Quay & Parsons, 1970). However, none of these previous classification systems were employed widely in correctional treatment or for management decisions. Perhaps this was due to the difficulty and cumbersome nature of these systems. The majority of available typologies relied upon case history and/or data that could only be obtained through time-consuming interviews or through file data review (Edinger, 1979). Given the growing incarceration rate, these systems have been generally considered impractical for use in classifying large offender populations.

To accommodate this problem, many researchers have relied upon the use of structured personality inventories to predict prison adjustment with larger samples. Earlier literature reviews by Gearing (1977) and Carbonell, Megargee, and Moorhead

(1984), indicate numerous attempts to utilize structured personality instruments in predicting adjustment, dating back to 1938 (Horsch & Davis, 1938). A variety of personality measures were used, including the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1943) the California Psychological Inventory (CPI; Gough, 1957), the Bernreuter Personality Inventory (BPI; Bernreuter, 1933), and the Minnesota Counseling Inventory, (MCI; Berdie & Layton, 1957). However, according to Carbonell and colleagues (1984), a number of shortcomings were evident throughout these attempts: (a) a proliferation of unreplicated studies; (b) test data often collected after the criterion data so that their usefulness in prediction could not be determined; (c) failure to report base rates of criterion behaviors such as rule violations; (d) comparisons of extreme groups, thereby inflating significance levels and limiting generality; (e) failure to report the actual magnitude of statistically significant mean differences or correlations; (f) use of atypical test administration procedures such as assuring inmates test responses would be kept confidential; and (g) failure to cross-validate multiple significance tests.

In response to these shortcomings, Megargee (1977), Megargee and Dorhout (1977) and Meyer and Megargee (1977) devised a typology that relied solely on the MMPI data and consists of 10 profile types. Unlike many previous systems, Megargee and colleagues used a hierarchical profile analysis and empirically identified 10 MMPI profile types occurring naturally within an adult prisoner population. Subsequently, he and his colleagues labeled these types with nondescriptive names (i.e., Able, Baker, Charlie, Delta, Easy, Foxtrot, George, How, Item, and Jupiter). Megargee and Dorhourt (1977)

demonstrated that these types are reliable groups that can be identified in a randomly selected prisoner sample.

The advantages of this classification system, as compared to others during this time, were numerous. For instance, since these typologies solely relied on MMPI results, classification data collections could be accomplished through administration of a single instrument. Furthermore, classification data for several prisoners could be collected simultaneously via group testing procedures. Finally, since the Megargee rules could be computerized (Megargee and Dorhout, 1977), classification of large populations could be quickly accomplished. Besides the advantages of relatively quick and easy administration and classification, the psychometric methods utilized to develop this system were scientifically grounded and actuarially based.

Beginning with 3 100-person samples of adult male prisoners incarcerated at the Tallahassee Federal Correctional Institute (FCI), Meyer and Megargee (1972) used Veldman's (1967) method of hierarchical profile analysis to determine clusters based on MMPI profile data. Nine groups originally emerged, with the tenth being added later. After Megargee and colleagues determined they were able to assign individual offender's profiles to these 10 groups in a reliable manner, Megargee and Dorhut (1976, 1977) formulated classificatory rules that operationally defined each of the offender types derived from the hierarchical analysis. Originally, these rules considered elevations, slope, patterns of high and low scores, and other configural aspects of an MMPI profile that most clinicians would interpret. Primary rules were set that determined eligibility for classification into a group; to be included in a given profile one must have met all the requirements. Secondary rules assisted with goodness of fit when a profile satisfied the

primary rules for two or more types. This process was assisted by a computer program, classifying the most clear-cut cases (Megargee & Dorhout, 1976). The remaining cases that did not meet criteria for any of the 10 types, were to be classified by a clinician familiar with the MMPI and the system and who could consult published guidelines addressing difficult discriminations or profile "ties". Utilizing these criteria, early research yielded an 85% to 95% classification rate, meaning that 85% to 95% of those individuals tested could be successfully categorized into one of the 10 offender types (Megargee & Dorhout, 1976; Megargee, 1977; Megargee & Bohn, 1977). With a reliable basis for classification, further research was dedicated to qualitatively describing the 10 types derived from MMPI produced actuarial data.

Megargee and Bohn (1977) described each of the 10 offender types in detail. The fist was Type Able, described as forceful, self-confident, and manipulative individual who experiences little guilt for antisocial acts. Type Baker persons appear depressed, withdrawn, and likely to experience difficulty in relating to authorities or peers. Among the more aggressive are Type Charlie individuals who seem bitter, hostile, and ready to strike out at others. Less aggressive are Type Delta persons, who are described as amoral and impulsive and who have a notable interpersonal charm that they use to manipulate others. While Type Easy appears to be well adjusted, intelligent, and underachieving. Type Foxtrot seems are best described as obnoxious, streetwise, abrasive individuals who engender much interpersonal conflict. However, Type George seems to be a submissive, highly adaptable person who experiences fewer interpersonal conflicts. Possibly the most psychologically disturbed of the types is that of Type How, which are commonly considered to be extremely agitated and unstable and whose crimes seem to be only one

component of a broad pattern of ineffective functioning. Quite the contrary to Type How, Type Item appears to the most "normal" and well-adjusted individual whose offenses seem unrelated to interpersonal and intrapersonal problems. Finally, Type Jupiter, inmates are described as impulsive persons who make a better than expected adjustment within the correctional environment.

These initial findings were promising, which prompted researchers to not only validate the use with federal prisoners, but also to investigate broader applications of classification system. Due to the increasing crime and incarceration rate of this time, studies began focusing on gender and institutional factors in a hope to encompass the wide variety of variables associated with criminality. In particular, research addressed two prominent issues, such as the applicability of the Megargee classification to female offenders (Edinger, 1979; Mrad, 1979; Schaffer, Pettigrew, Blouin, & Edwards, 1983) and the applicability to other inmate populations, such as state supported prison and jail systems (Edinger & Auerbach, 1978; Edinger, 1979; Booth & Howell, 1980; Craig, 1980; Walters, 1986).

With regards to the issue of female offenders, two questions were addressed: Can a system derived from male samples classify a substantial portion of the MMPI profiles of female offenders? Secondly, will the relative size of the 10 profile types be similar to those of male samples? Megargee (1997) aggregated results from six samples totaling 1,043 female offenders in federal, state, and local institutions to address these questions (Mrad, 1979; Schaffer, Pettigrew, Blouin, & Edwards, 1983; Smith, 1983; Wrobel, Calovini, & Martin, 1990). When compared to two samples of male prisons from state and federal correctional institutions, results initially appeared promising. Nine hundred

forty one of the total 1,043 females (90%) could be successfully classified into 1 of the 10 offender types, yielding similar results to those reported for the state and federal male samples, 97% and 92% respectively. The only noteworthy difference was the higher proportion of women in Type Charlie, with 16% of the females as compared to 9.1% for the male state sample and 8.8% for the male federally incarcerated. To test the reliability of the typologies for female offenders, Schaffer et al. (1983) conducted a cluster-analytic technique to the profiles of the 86 state female prisoners in his sample. Despite the small sample size, the authors' study replicated types Able, Charlie, Delta, Easy, How, and Item, and found partial support for George. The two smallest types, Baker and Jupiter, were not replicated, nor was the group with the most demanding profile requirements, Type Foxtrot.

However in a review of four studies (Mrad, 1979; Sink, 1979; Smith, 1983; and Wrobel et al., 1990) conducted by Sliger (1992), methodological and psychometric problems were noted. For instance, she reported that these studies suffered from relatively small sample sizes that required some groups be deleted or combined with other types. Furthermore, one study in particular (e.g., Smith, 1983) utilized insensitive analytic procedures, possibly diminishing the accuracy of group membership. However, after reanalyzing Smith's data (1983), Sliger reported that female types did differ from one another, often in the same manner as the male types. Among the female offenders, as with the men, Groups Able and Easy were among the best adjusted types and Charlie and Foxtrot among the poorest adjusted. Types Delta and George presented with mixed results, yielding slightly more deviance compared to that of males. Female group members of Type How appeared somewhat more adjusted than their male counterparts,

while female members of Group Item seemed somewhat less adjusted as compared to male samples. Due to the relatively small number of group members in Types Baker and Jupiter, Sliger was limited in her discussion regarding these types. Nonetheless, Sliger concluded that more extensive research with larger samples of incarcerated women and more meaningful collateral data were needed before simply extending the male-normed classification system to the MMPI profiles of female offenders.

The applications of the MMPI-based Megargee classification system to state correctional facilities and specialized criminal populations are well documented. For instance, research on state prisons (Edinger, 1979; Booth & Howell, 1980; Gearing, 1981; Schaffer, Edwards, & Pettigrew, 1981; Wright 1988), local jails (Cassady, 1978), and restitution centers (Howell & Geiselman, 1978) have generalized the classification system to state and community levels. Furthermore, the MMPI-based system has been well applied to forensic mental heath units (Edinger, 1979; Carbonell, Bohn, & Megargee, 1986; Megargee, Bohn, & Carbonell, 1988), death row inmates (Dahlstrom, Panton, Bain, & Dahlstrom, 1986), and even to individuals who have threatened the president (Megargee, 1986), in an attempt to address the needs of specialized populations. Among these applications however, the state-wide prison systems and Department of Corrections (DOC) has generated the most research, possibly in an attempt to manage the ever-increasing incarceration rate among adults.

Edinger (1979) first compared a sample of 1,291 male Alabama state prisoners to that of the classification rates and group membership yielded by the Tallahassee FCI sample (Megargee & Dorhout, 1977). Utilizing the typing rules as described by Megargee and Dorhout (1977), Edinger classified 86.1% (N = 1,112) of the 1,291 male state prisoners.

When comparing corresponding MMPI scales within each type to the original Tallahassee sample, 70.8% (92/130) of the state prisoner sample revealed differences of 3 or fewer *T*-score points, producing quite similar profiles to that of the corresponding federal types. Later research validated these findings. Utilizing aggregated data from eight samples comprising 2,055 male state prisons (Nichols, 1980; Gearing, 1981; Schaffer et al., 1981; Cary, Garske, & Ginsberg, 1986; Walters, Mann, Miller, Hemphill, & Chlumsky, 1988) and eight other samples totaling 2,628 men in federal correctional institutions (Bohn, 1979; Baum, 1981; Simmons, Jonson, Gouvieer, & Muzyczka, 1981; Edinger, Reuterfors, & Logue, 1982; Jonson, Simmons, & Gordon, 1983; Van Voorhis, 1988), Sliger (1992) found the proportions of state prisoners to that of the federal inmates were very similar, with no notable differences. The federal aggregated sample yielded a 92% overall classification rate, while the state sample produced a 97% overall rate. Thus, it has been shown that the MMPI based offender classification system is generalizable to that of male prisons with state penitentiaries. However, as the Minnesota Multiphasic Personality Inventory 2 Edition (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) was introduced, two new questions arose. Namely, (1) Can the rules developed to classify the original MMPI profiles of male offenders be used with the MMPI-2, and (2) If not, can the rules be revised to yield MMPI-2 classifications essentially equivalent to those based on the original MMPI?

Megargee's classification system and the MMPI-2

While the items comprising the clinical scales of the MMPI-2 have not changed substantially from the original version, the revised edition differs from the MMPI in several important respects. MMPI-2 norms are based on a much more recent and

representative national sample than the individuals whom the MMPI was standardized in the late 1930s. In addition, the new norms also reflect the current practice of encouraging respondents to answer all the items in contrast to allowing multiple omitting of responses (Butcher, 1992). Furthermore, the MMPI-2 uses uniform *T* scores that are based on the pooled variances in place of the original MMPI's linear *T* score on Scales 1, 2, 3, 4, 5, 7, 8, and 9 (Tellegen & Ben Porath, 1992). Thus as a result, MMPI-2 profiles can be considered less elevated, and the relative frequencies of various configurations and codes have changed. This is evidenced by the fact that a *T* score of 65 instead of 70 is now regarded as clinically significant.

Since the original classificatory rules included all aspects of the profile, including elevation, slope, and the pattern of high and low scores, necessary changes were needed before applying it to the profiles yielded by the MMPI-2. This was first tested by Megargee and Rivera (1990), using 100 male offenders, 10 participants from each type. When the original MMPI raw scores were plotted on MMPI-2 profile sheets and classified according the original rules, it was discovered that 7 were unclassifiable while only 48 of the remaining 93 cases (53%) had identical classifications. This finding encouraged further investigation in this area. Megargee (1994) first addressed this issue by asking whether the classificatory rules devised for the original MMPI would, when applied to the MMPI-2s of male offenders, result in the same classifications that would have been obtained if they had been tested with the original MMPI. He used 1,213 male offenders who had been tested and classified during the initial derivation and validation of the MMPI-based system. In addition, he collected MMPI-2s administered to 209 adult male state prisoners and 213 male federal prisons. He found that in the first date set, in

which unique classification based on the original MMPI were compared with those based on estimated MMPI-2s, 1,075 of the 1,213 participants (89%) could be classified on both measures. Of this sample, 644 (60%) yielded identical classifications. With the second data set, in which classifications based on estimated original MMPI's were compared with those based on actual MMPI-2, 367 of the 422 participants (87%) could be classified on both measures. Of these, 240 (65%) yielded identical classifications.

Utilizing the same two data sets, Megargee next asked whether new rules could be devised for the MMPI-2 that would yield classifications comparable to those obtained with the original MMPI. He entered the 1,213 pairs of original MMPI and estimated MMPI-2 classifications into a standard spreadsheet, along with their 2 *T* score Welsh codes. To analyze discrepancies, he sorted the data for the original MMPI classifications within those categories for the estimated MMPI-2 classifications and examined the profiles in each MMPI type. The disagreements were examined to determine which of the original rules caused the estimated MMPI-2 profiles to become misclassified. Using the original guidelines, the characteristics of the estimated MMPI-2 profiles, and Welsh codes for each of the 10 types, numerous questions were asked to derive new primary rules. The main purpose of these questions were to compose a number of possible primary and secondary rules attempting to capture the basic characteristics of each profile type. The second date set was used to test the validity of new classification rule sets.

Results were promising, with 385 of the 422 men (92%) in the combined state and federal offender samples could be classified on both the estimated original MMPI and on the actual MMPI-2, with 314 of the 385 (82%) being classified identically. The proportion of identical classifications ranged from 100% with Foxtrot to 40% with Baker,

with the median of 82%. The original rules applied to the estimated original MMPI's of the 422 participants 31 (7%) unclassifiable. However, after the new rules were applied to the MMPI-2 profiles of the 422 only 15 (4%) were considered unclassifiable, a substantial increase in accuracy. While preliminary research on both male state and federal prisoners appeared promising, generalizing the MMPI-2 based system to other populations, particularly females, was essential in testing the reliability of the new classification rules.

In an initial study, Megargee (1997) investigated the suitability of the existing rules for classifying the MMPI-2s of 400 female state and federal offenders. To compare MMPI and MMPI-2 classifications, the MMPI-2 profiles were rescored, reconfigured, and reprofiled to produce estimated original MMPI's. Both profiles were classified according to the original classificatory rules and the amount of agreement was determined. The MMPI-2 profiles were also reclassified using the new MMPI-2 rules derived from male samples (Megargee, 1994) to measure agreement.

When the original rules were applied to the estimated original MMPI's, the results were very similar to those obtained with the original MMPI's of both male and female offenders. Of the 400 profiles, 372 (93%) were classifiable, with comparable distribution across the 10 offender types when compared to past literature (e.g., Miller, 1978; Sink, 1979). However some differences were noted, particularly with Group Item, which was more frequent and Group Charlie, which was less frequent when compared to the literature. When the original MMPI rules were used to classify the MMPI-2s, 360 cases (90%) were classifiable, however ratios of certain groups deviated from the typical patterns previously found. For instance, Group Foxtrot which represented 8% (N = 29) on

the MMPI significantly dropped to 0.3% (N = 1) on the MMPI-2. Furthermore Group Item, which has a low non-specific profile, increased substantially from 113 cases (30%) with the MMPI profiles to 178 cases (49.4%) with the MMPI-2 profiles. Using the new MMPI-2 rules for men, 351 of the female MMPI-2 profiles (88%) were classifiable, with the distribution across types quite comparable to those found on the original MMPI (e.g., Miller, 1978; Smith 1983). Group Foxtrot increased slightly accounting for 7% (N = 25), while Group Item decreased to 88 cases (25%). However Group How increased to 20% (N = 69) while Group Able decreased to 10% (N = 34) from the original MMPI distribution of 59 cases (16%).

In the second part of the study, Megargee (1997) revised the MMPI-2 classificatory rules derived for men so that they would be better suited to classify MMPI-2s of female offenders. Results were quite promising, with the new MMPI-2 rules classifying 394 of the 400 cases (99%). This was a substantial improvement on the 90% (N = 360 0classified with the original MMPI rules, and improving even more when compared to the 351 cases (88%) classified with the new MMPI-2 rules for men. Distribution across the 10 offender types represented that of the original MMPI based classification rate with one major exception. After only contributing error variance and its infrequency among the female sample, Group Jupiter was deleted and deemed too unreliable to be included into the 10 offender type classification system thus reducing the total categories to 9. This research concluded that with appropriate modifications, the Megargee offender classification system could be successfully and accurately applied to the MMPI-2 profiles of both federal and state female prisons. While the use of the MMPI and MMPI-2 based classification system has been applied to both female and male adult samples,

investigation into the utility with youthful populations is somewhat limited. However, the use of the original MMPI with adolescents is well documented giving a solid basis for future investigations.

The original MMPI has been used in the clinical assessment of juvenile delinquents for over 6 decades. When comparing 101 delinquent to that of 85 nondelinquent MMPI profiles of adolescent females, Capwell (1945) discovered that Scales *F,* 1, 2, 4, 6, 7, 8, and 9, particularly Scale 4, of the delinquent youth were significantly more elevated. Further research conducted by Hathaway and Monachesi (1957) classified Scales 4, 8, and 9 as "excitatory" scales. For instance, when these scales were the most prominent within the profiles the rates of subsequent delinquency ranged form 22% to 24%. Moreover, if the highest scale equaled or exceeded a *T* score of 70, the rates increased from 26% to 32%. In contrast, Scales 0, 2, and 5 were considered "inhibitory" scales. When these scales were the most prominent, delinquency rates decreased to only 11% to 13%. Since these early studies, numerous researchers have investigated the utility of the MMPI based "excitatory" and "inhibitory" scales with delinquents who had been committed or paroled from juvenile correctional institutions (e.g., Lefkowitz, 1966; Aniol, 1971; Wenk & Emrich, 1972; Boone & Green, 1991). The majority of these studies used *K*-corrected adult norms and concurrent research designs. However, similar research using MMPI based adolescent norms found comparable results. Using Marks, Seeman, and Hatler's (1974) adolescent norms, Cornell, Miller, and Benedek (1988) and Westendorp, Brink, Roberson, and Ortiz (1986) found similar profile elevations in that Scales 4, 6, 8, and 9 were most prominent in delinquent samples. Though these results

appeared promising, the adolescent norms were minimum in size and methodologically flawed which most likely made the adult norms more reliable.

The MMPI-A

Partly in response to the need for more age appropriate based assessment, the Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A; Butcher, Williams, Graham, Archer, Tellegen, Ben-Porath, & Kaemmer, 1992) was developed. The MMPI-A retained all of the original MMPI's validity and clinical scales, but *K* scale corrections were eliminated and uniform *T* scores using pooled variance estimates replaced linear *T* scores on Scales 1-4 and 6-9. Some items were reworded while others were replaced. New validity scales and rationally derived content scales designed to reflect the concerns of adolescents were added. The entire inventory was restandardized using a representative national sample of 1,620 adolescents.

Since its development, the MMPI-A has become one of the most utilized psychological measures with adolescent populations. In fact the MMPI-A has been ranked fifth in popularity, behind Wechsler Intelligence Scales and three projective tests, among clinicians who work with adolescents in a variety of clinical and academic settings (Archer & Newsom, 2000). Moreover, these authors also found that the MMPI-A was the only self-report objective personality assessment instrument included in the top ten. Similarly within the research community, the MMPI-A is approaching the status achieved by its predecessor. Forbey (2003) reported that approximately 112 books, chapters, and research articles have been published since the measures release in 1992. For instance, 25 of these articles address methodological issues such as factors structure, 21 articles relate to the development of specific scales or group of scales, and 14 articles

addressed cross-cultural or multicultural issues. A particular area of focus that has received growing attention within the research literature is that of juvenile forensic and adolescent offender populations.

As with its predecessor, the MMPI-A has been utilized in the identification of juvenile delinquents. For instance, Cashel, Rogers, Sewell, and Holiman (1998) investigated the clinical correlates of the MMPI-A in male delinquent sample including 99 incarcerated juveniles at a North Texas youth correction facility. The correlates included the Schedule of Affective Disorders and Schizophrenia for School Age Children (K-SADS-3-R; Ambrosini, Metz, Prabucki, & Lee, 1989), and a structured diagnostic interview. Correlates were consistent with expectations based on the constructs measured by MMPI-A scales. For instance, strong associations were found between MMPI-A scale 2 elevations and the K-SADS-3-R symptoms of depression, including such symptoms as appetite disturbance and depressed mood. Furthermore, associations were found between MMPI-A scale 9 and symptom presentation of hyperactivity and disturbances in conduct. Earlier research conducted by Pena, Megargee, and Brody (1996) investigated configural patterns for MMPI-A scales within a juvenile offender population. MMPI-A profiles for 162 delinquent youth were determined and compared with those of the 805 non-delinquent male MMPI-A of the normative sample and patterns produced on the original MMPI for 7,783 adolescents identified from a literature review. Pena and colleagues found that the most prominent clinical elevations for their delinquent sample included scales 4, 6, and 9 and that the 4-9/9-4 code type was the most frequent. Moreover, significantly different *T* score values were yielded between the delinquent and non-delinquent samples on 17 of the 38 MMPI-A basic, supplementary, and content scales. In

sum these authors' findings support the concurrent and construct validity of the MMPI-A scales and found that the MMPI-A configurations found in their study were highly consistent with previous literature on juvenile delinquents.

Again utilizing the MMPI-A normative sample for comparison, Morton, Farris, and Brenowitz (2002) investigated the ability of the MMPI-A to distinguish between 855 male juvenile offenders in a South Carolina corrections facility and that of the 805 non-delinquent norm-based group. These authors found that scale 5 was the most effective scale in identifying normal and delinquent juveniles, with a low scale 5 being characteristic of the offender sample. As with previous research, elevations on scales 4 and 9 were also found to discriminate between the delinquent and non-delinquent samples. Using discriminant analysis based on the optimal combination of various groupings of MMPI-A scales, the authors effectively identified adolescents in the offender and normative samples. The sensitivity ranged from 90% to 95% and the specificity ranged from 80% to 85%.

A follow-up study conducted by Archer, Bolinskey, Morton, and Farris (2003) investigated the extent in which the MMPI-A profiles of 196 male juvenile offenders could be discriminated from the protocols of 200 male juvenile psychiatric patients and 151 dually diagnosed adolescent males. Significant differences were found in mean *T*-score values across a variety of scales and subscales. Further analyses revealed that treatment settings could be identified from scores on six of the MMPI-A scales (F2, ACK, IMM, R, Hy3, and Si2). These findings suggested that male delinquent youth could be characterized by emotional immaturity and their attempts to appear psychology controlled and well adjusted. Not only did this study show that MMPI-A profiles of

youthful males in detention, psychiatric, and dual diagnosed samples demonstrated some important differences, but it also demonstrated many profile similarities suggesting a commonalities among inpatient and incarcerated delinquents.

While studies such as these focus on identification of juvenile delinquency as a function of MMPI-A scales, other researchers have began investigating the discrimination among juvenile offender types using the configural patterns yielded by MMPI-A profiles. Glaser, Calhoun, and Petrocelli (2002) examined the ability of the MMPI-A scales to discriminate between three general types of criminal offenses among male youthful offenders. Using the categories of crime against person, crime against property, or alcohol/drug offenses, 72 male juvenile offenders were classified. Findings were promising, 79.2% of the cases could be identified using MMPI-A scales. For instance, those adolescents who scored higher on basic scales 1 and 0 were less likely to later develop drug and alcohol difficulties and more likely to be classified accurately as engaging in property related crimes. Juveniles who scored high on the A-sch content sale and low on scale 9 were more likely to engage in alcohol and drug offenses.

In sum, the literature on the use of the MMPI-A with juvenile offenders has yielded promising findings in discriminating among the profiles of offenders, non-offenders, and various psychiatric samples by utilizing a variety of scales and subscales. Efforts have also shown potential in using configural patterns yielded by MMPI-A profiles in discriminating between general types of criminal offenses. Even though such efforts compliment the utility of the MMPI-A with incarcerated youth, no comprehensive MMPI-A based youthful offender classification system has been developed to date. Given the success of the Megargee classification rules developed for the MMPI (1979)

and the MMPI-2 (1994; 1997), the extension of such a system to the MMPI-A would be an efficient and empirically sound method of addressing the concerns of youthful incarceration. The current study will investigate just that; the extent to which the Megargee classification system can be adapted for the use with the MMPI-A.

CHAPTER II

Method

Participants

The original sample for this study consisted of 1906 male juvenile offenders, ages 12 to 17 years old. Of the 1906, 151 produced invalid MMPI-A protocols and 21 were 12 years of age or younger, making them ineligible for MMPI-A administration. Thus, the total sample for the current study consisted of 1734 juvenile offenders between the ages of 13 and 17 years of age. Table 1 provides mean age, family income, and WISC-III scores for the current sample. Table 2 displays percentages of ethnicity for the current sample. These offenders were administered the MMPI-A over the past 8 years as a component of their admission to Upstate Regional Evaluation Center located in Union, South Carolina. Upstate Regional Evaluation Center provides residential court-ordered evaluations for adjudicated juveniles from the northern region of South Carolina prior to final disposition of their cases. Further, this facility provides comprehensive psychological, social, and educational assessments to guide the court's disposition of cases. The facility serves male juveniles ages 11 to 17 from 15 upstate counties and is one of three regionalized evaluation centers around the state. By law, the length of stay for adjudicated juveniles cannot exceed 45 days. Following evaluative procedures at this facility, generally juveniles are transferred to a long-term commitment institution in which they serve the remainder of their sentence. Juveniles who had have previously completed the MMPI-A will be included in the current study.

Table 1

Means for Age, Family Income, and IQ Scores

Variable	n	Mean	SD
Age	1734	14.89	1.19
Family Income	1734	13,070	8,583
Full Scale IQ	1734	85.48	13.84
Verbal IQ	1734	85.91	14.15
Performance IQ	1734	87.63	13.79

Note. Intelligent Quotients scores were calculated using the Wechsler Intelligence Scale for Children-3rd Edition (WISC-III).

Table 2

Frequencies and Percentages for Ethnicity.

Ethnicity	n	%
Caucasian	861.79	49.7
African American	861.79	49.7
Other	10.40	.6

Note. Other = .6% accounts for Asian, and Latin-American participants.

Materials

Minnesota Multiphasic Personality Inventory-Adolescent: The MMPI-A is a 478-item self-report standardized personality measure that elicits a wide range of self-descriptions scored to give a quantitative measurement of an adolescent's level of emotional adjustment and attitude

toward test taking. It is designed to be administered to adolescents aged 14 to 17 inclusive and may be selectively used with 18 year olds and 12 and 13-year olds under certain circumstances.

Eighteen year olds can be evaluated with the MMPI-A if they are living with their guardians in a dependent environment but should be assessed with the MMPI-2 if living independently. The test manual notes that the MMPI-A can be administered to "bright mature adolescents" as young as 12 years of age. However, research suggests that these subjects should be carefully evaluated before MMPI-A administration is undertaken (Archer & Krishnamurthy, 2002). Utilizing the Flesch-Kincaid reading comprehension standard, a seventh-grade reading level serves as the current recommendation for adolescents evaluated with the MMPI-A.

The MMPI-A can be administered using a printed booklet or an audio-tape, or by computer. A Spanish, Dutch/Flemish, French, and Italian language versions of the test is also available for both booklet and some audio type formats. Administration time is estimated between 60 to 90 minutes depending on the examinee's age and reading level. However, it should be recognized that some adolescents may be too easily distracted, hyperactive, oppositional, or impulsive to complete all items in a single session. The authors suggest using frequent breaks and praise and encouragement from the examiner to further build rapport and facilitate completion of the measure.

With regards to scale composition, the validity scales Lie (L), Infrequency (F), and Correction (K) from the original MMPI were maintained in the MMPI-A. However, as described earlier, there were some significant changes made in the F scale, contributing to the development of F_1 and F_2 subscales. Based on the MMPI-2, the MMPI-A also

consists of the Variable Response Inconsistency Scale (VRIN), which assesses inconsistent responding and is useful in identifying random protocols, and the True Response Inconsistency Scale (TRIN), which assesses true and false response biases. The MMPI-A also retained the 10 original clinical scales. Table 3 depicts the MMPI-A clinical scales. While some of the scales have several fewer items than the original ones and include slightly rewritten items, the clinical scales of the MMPI-A are quite similar to the corresponding scales of the MMPI and MMPI-2. As mentioned previously, none of the MMPI-A clinical scales is K corrected.

Table 3

Clinical and Content Scales for the MMPI-A

Scale	Scale Abbreviation	Scale Number
Clinical Scales		
Hypochondriasis	(*Hs*)	1
Depression	(*D*)	2
Hysteria	(*Hy*)	3
Psychopathic Deviate	(*Pd*)	4
Masculinity-Femininity	(*Mf*)	5
Paranoia	(*Pa*)	6
Psychasthenia	(*Pt*)	7
Schizophrenia	(*Sc*)	8
Hypomania	(*Ma*)	9
Social Introversion	(*Si*)	0
Content Scales		
Anxiety	(*anx*)	
Obsessiveness	(*obs*)	
Depression	(*dep*)	
Health Concerns	(*hea*)	
Bizarre Mentation	(*biz*)	
Anger	(*ang*)	
Cynicism	(*cyn*)	
Low Self Esteem	(*lse*)	
Social Discomfort	(*sod*)	
Family Problems	(*fam*)	
Negative Treatment Indicators	(*trt*)	
Conduct Problems	(*con*)	
Alienation	(*aln*)	
Low Aspirations	(*las*)	
School Problems	(*sch*)	

Note: Content Scales *con*, *aln*, *las*, and *sch* were particularly developed for the MMPI-A to address adolescent specific difficulties.

The supplementary scales for the MMPI-A involve measures that were developed for the original MMPI, including Anxiety (A) scale, the Repression (R) scale, and the MacAndrew Alcoholism scale (MAC). In addition, MMPI-A also consists of several new supplementary scales, which include Immaturity (IMM) scale, the Alcohol/Drug Acknowledgement (ACK) scale, and the Alcohol/Drug Problem Proneness (PRO) scale. The MMPI-A content scales parallel the MMPI-2 content scales. In addition, four new content scales were developed that focus upon specific adolescent problems. Refer to Table 3 for a comprehensive list of MMPI-A content scales.

Record Review Form: The Record Review Form consists of archival data that has been collected by the Upstate Regional Evaluation Center over a period of up to 8 years, including original date of admitting criminal charges and subsequent crimes committed post-initial-incarceration. The collection of Date of Births (DOBs) and Date of Admissions (DOAs) will also take place and are necessary to calculate age at admission if the numerical age is not available. These variables are also needed to determine the participants 18th year of age, so incarceration data can cease. This process serves the purpose of excluding any incarceration data that Upstate Regional Evaluation Center may have that exceeds the participants 18th birthday, thus still considering the participant a juvenile and a relevant case for the purposed study. Other variables on the Record Review From include: Type of admitting crime categorized into three categories (violent, serious/nonviolent, and non-serious), type of prior offenses (violent, serious/nonviolent, and non-serious), number of prior offenses, number of prior commitments to SCDJJ, income (based on $5,000 US dollar increments), various court information (e.g., county of adjudicated, referral source), and IQ scores based on the Wechsler Intelligence Scale

for Children 3rd edition (WISC-III; Wechsler, 1991) including Full Scale, Verbal, and Performance IQ scores.

Procedure

De-identified MMPI-A profile data (e.g., validity and clinical scales) was be copied from the juvenile's medical records and a record review form was completed based on information contained in the juvenile's medical records. During the record review process, DOB and DOA was collected from Upstate Regional Evaluation Center by the investigator. The facility maintained a list of records from which data have been extracted to avoid duplication. This list and the DOB and DOA variables contained in our data set will be destroyed at the conclusion of the study.

MMPI-A clinical scale scores was entered into a computer program to determine membership into Megargee's 10 offender types. The computer program used is based on Megargee's classification criteria, but was modified to accommodate the lower profile ratings typically found for adolescents on the MMPI-A. An overall percentage rate of all 10-offender types was used to determine the applicability of MMPI-A profiles with the modified Megargee system. Table 4 depicts the classification used in the current study, as well as a comparison to the original procedures utilized by Megargee (Megargee & Bohn, 1977). In addition, percentage rates of individual offender types were compared to that of adult populations using the original Megargee system. Each of the 10 offender types were correlated with all variables in the Record Review Form to determine correlational patterns and magnitude of the correlation coefficients. Data was extracted from the facility in a manner that would make it impossible for the investigators to identify individual subjects. Records were assigned a sequential number (e.g., 1, 2, 3, 4) and data

extracted by the investigator and maintained in a database at Eastern Virginia Medical School. Data were entirely de-identified with the exception of DOA and DOB. Upstate Regional Evaluation Center kept a list of names and/or ID numbers that are not linked to the investigator assigned sequential number so that data are not extracted for the same individuals more than once.

Table 4

Basic Classification Procedure

Megargee's Procedure	Current Procedure
I. Screen profiles for validity	I. Screen profile for validity
II. Using K-corrected MMPI-2 T scores compute sums	II. Using MMPI-A T scores compute sums
A. [Scales 1+2+3+4] =Left Sum	A. [Scales 1+2+3+4] =Left Sum
B. Σ[Scales 6+7+8+9] =Right Sum	B. Σ[Scales 6+7+8+9] =Right Sum
C. Σ[Left Sum]+[Right Sum]=Big Sum	C. Σ[Left Sum]+[Right Sum]=Big Sum
D. Σ Scales [1+2+3]	D. Σ Scales [1+2+3]
E. Σ Scales [2+4]	E. Σ Scales [2+4]
F. Σ Scales [4+6+8+]	F. Σ Scales [4+6+8+]
G. Σ Scales [4+9]	G. Σ Scales [4+9]
III. Using K-corrected MMPI-2 T scores compute differences	III. Using MMPI-A T scores compute differences
A. [Right Sum]-[Left Sum]=Slope	A. [Right Sum]-[Left Sum]=Slope
B. [Scale F]-[Scale K]	B. [Scale F]-[Scale K]
C. [Scale 4]-[Scale 9]	C. [Scale 4]-[Scale 9]
D. [Scale 7]-[Scale 6]	D. [Scale 7]-[Scale 6]
E. [Scale 9]-[Scale 8]	E. [Scale 9]-[Scale 8]

Megargee & Bohn (1977)

Data Analyses

Preliminary Analyses: Initial analyses calculated the percentage rate of all 10-offender types to determine the applicability of MMPI-A profiles with the modified Megargee system. Means and percentage rates for age, family income, ethnicity, and IQ scores for

each 10-offender types were also investigated. Finally, means and percentage rates of individual offender types based on MMPI-A profiles were compared to that of adult populations using the original Megargee system (Megargee, 1977).

Further analyses in this study examined the relationship between the frequency of occurrence of Megargee classifications to a variety of variables including: seriousness of admitting offense (classified into violent, serious/nonviolent, and non-serious), age at admission, number of previous disposed offenses, most serious prior disposed offense (classified into violent, serious/nonviolent, and non-serious), and number of previous commitments to SCDJJ. Family income and IQ scores as measured by the WISC-III (including Full Scale, Verbal IQ and Performance IQ scores), were also examined in selective analyses. The participants' Megargee classifications were used to predict to these categorical and continuous outcome variables.

Predictive Analysis:

In order to examine the relationship between the predictive utility of Megargee classification versus the standard use of MMPI-A basic scale results, a series of hierarchical analyses were conducted. For categorical variables (e.g., seriousness of admitting offense) the following procedure was conducted: a Discriminant Function Analysis (DFA) was run with step 1 using the participants' classification into the Megargee system, and step 2 the participants' classification on each of the MMPI-A basic scales. This procedure was then reversed, with MMPI-A dichotomized classification added to step 1 and Megargee classification entered in step 2. This set of analyses was repeated for each of the Megargee classification categories, totaling 20. To investigate the predictive utility of particular demographic variables (i.e., Age, Full Scale IQ, and

Ethnicity), a DFA was used for each categorical outcome variables, seriousness of admitting offense and most serious prior offense. In the case of continuous variables such as age at commitment, the approach can be illustrated as follows: A step-wise multiple regression was used to predict age at commitment in which the first step is the classification of the participant into the Able classification category, and the second step included the use of data from each of the ten MMPI-A basic scales categorized as either having a *T*-score of 64 and below or a *T*-score of 65 and above. This process was then reversed, with step 1 of the hierarchical regression consisting of the dichotomized predictor variables from each of the basic scales and step 2 consisting of the dichotomized Megargee classifications. This procedure was used for each of the 10 Megargee Categories, totaling 20 analyses. As with the categorical outcome variables, the predictive utility of particular demographic variables was also investigated with the continuous variables of interest. The variables age, Full Scale IQ, and ethnicity were regressed onto number of prior offenses and number of prior commitments. Table 5 lists each outcome variable and how it is operationally defined in the current study.

Table 5

List and Definition of Outcome Variables in Current Study

Variable	Definition
Continuous variables	
IQ (As measured by the WISC-III)	
Full Scale	IQ points
Verbal	IQ points
Performance	IQ points
Age at commitment	Number of years
Previous disposed offenses	Number of offenses
Previous commitments to SCDJJ	Number of commitments
Family income	U.S. dollars in thousands
Categorical variables	
Seriousness of admitting offense	Violent Serious/Non-violent Non-serious
Most serious prior disposed offense	Violent Serious/Non-violent Non-serious

CHAPTER III

Results

Preliminary Analysis: From the total sample of 1734 incarcerated male juveniles used in this study, 52 cases were randomly selected to be independently coded in order to derive a Megargee classification using the modified classification rules developed for this study. The correlation between classifications independently derived by two raters was .95. The classification rules, as shown in the methods section, for each of the Megargee categories were transferred to computer code resulting in the classification of cases shown in Table 6 below. As shown in this table, 6.5% of all adolescents in the study were not classifiable into the one of the ten categories in the Megargee classification system.

Table 6

Comparison of Classification Group Membership of the Current Study to that of Megargee's Adult Correctional Membership

Group	Current Study	Megargee's
Able	6.0%	18-20%
Baker	9.8%	3-6%
Charlie	9.2%	8-10%
Delta	8.2%	10-13%
Easy	4.4%	6-8%
Foxtrot	5.1%	6-8%
George	8.2%	6-9%
How	5.2%	10-13%
Item	30.6%	17-24%
Jupiter	6.8%	2-5%
Unclassifiable	6.5%	

Table 7 provides the mean Full Scale, Verbal, and Performance IQ scores for adolescents who were classified into each of the ten Megargee categories. In addition to

means and standard deviation data, this table also includes *t*-test data which compares the mean IQ scores for adolescents in each of the groups against all remaining groups. For example, the *t*-test value of 4.48 for the Charlie group in this table demonstrates that adolescents in this group had a significantly lower mean IQ score than all remaining adolescents not classified into the Charlie category.

Table 7

Means, Standard Deviations, and T-tests for IQ by Megargee Classification Type

Classification	Full Scale					Verbal IQ					Performance IQ				
Type	N	M	SD	*t*	*d*	N	M	SD	*t*	*d*	N	M	SD	*t*	*d*
Able	106	88.90	12.33	2.63 **	.27	106	90.08	12.37	3.13 **	.33	106	89.68	13.00	1.62	.17
Baker	151	85.00	12.67	.45	.03	151	85.65	12.90	.24	.02	151	86.96	13.87	.57	.04
Charlie	140	80.49	13.90	4.48 ***	.39	140	81.11	13.75	4.20 ***	.38	140	83.24	14.38	3.89 ***	.34
Delta	140	89.24	13.14	3.36 **	.30	140	89.34	14.41	2.99 **	.26	140	91.18	13.40	3.24 **	.29
Easy	147	84.57	15.10	.83	.06	146	84.23	15.33	1.50	.12	146	87.94	14.69	.34	.03
Foxtrot	86	87.39	13.59	1.31	.15	86	88.36	14.37	1.65	.18	86	88.57	13.42	.69	.08
George	133	82.05	12.97	2.98 **	.28	133	81.39	13.84	3.84 ***	.35	133	85.54	12.29	1.76	.17
How	91	85.19	14.49	.20	.02	91	84.31	14.63	1.11	.11	91	88.50	14.84	.66	.07
Item	614	87.33	13.43	4.16 ***	.21	614	88.10	13.78	4.81 ***	.24	614	88.76	13.28	2.67 **	.14
Jupiter	114	80.56	13.60	3.94 ***	.38	114	81.31	13.78	3.60 ***	.35	114	83.17	14.22	3.53 ***	.34

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. Intelligent Quotients scores were calculated using the Wechsler Intelligence Scale for Children-3rd Edition (WISC-III). *d* = Cohen's *d*

Table 8 shows the mean income for adolescents in each of the ten Megargee classification groups. Other data includes standard deviations and *t*- test values comparing the mean age of adolescents in each of the groups against to all remaining adolescents. Significant results were found for the Delta category, $t\ (78) = 2.28, p < .05$.

Table 8

T-tests for Income by Megargee Classification Type

Classification Type	Income N	M	SD	*t*	Cohen's *d*
Able	59	14.07	8.83	.92	.12
Baker	153	13.87	9.30	.94	.09
Charlie	72	13.13	7.85	.05	.01
Delta	78	15.19	8.08	2.28 *	.28
Easy	73	13.15	8.48	.08	.01
Foxtrot	42	13.33	8.01	.20	.03
George	75	12.00	8.97	1.13	.13
How	43	11.63	8.29	1.13	.18
Item	334	12.69	8.65	1.01	.07
Jupiter	60	11.92	8.03	1.08	.15

* $p < .05$

Figures 1 through 10 depict the mean profiles for each of the Megargee classification categories for adolescents in the current student. The Figures include the data for all adolescents who were classified into this category following the resolution of any multiply classified adolescents into a single code (i.e., All). Also depicted are the mean profiles for adolescents who were classified into the each profile without qualifying for placement in any other potential Megargee category (i.e., Non-ties). Figures 11 and 12 illustrate the mean profiles for multiclassified and unclassified adolescents respectively. Finally the remaining figures depict distribution of various demographic data.

Figure 1

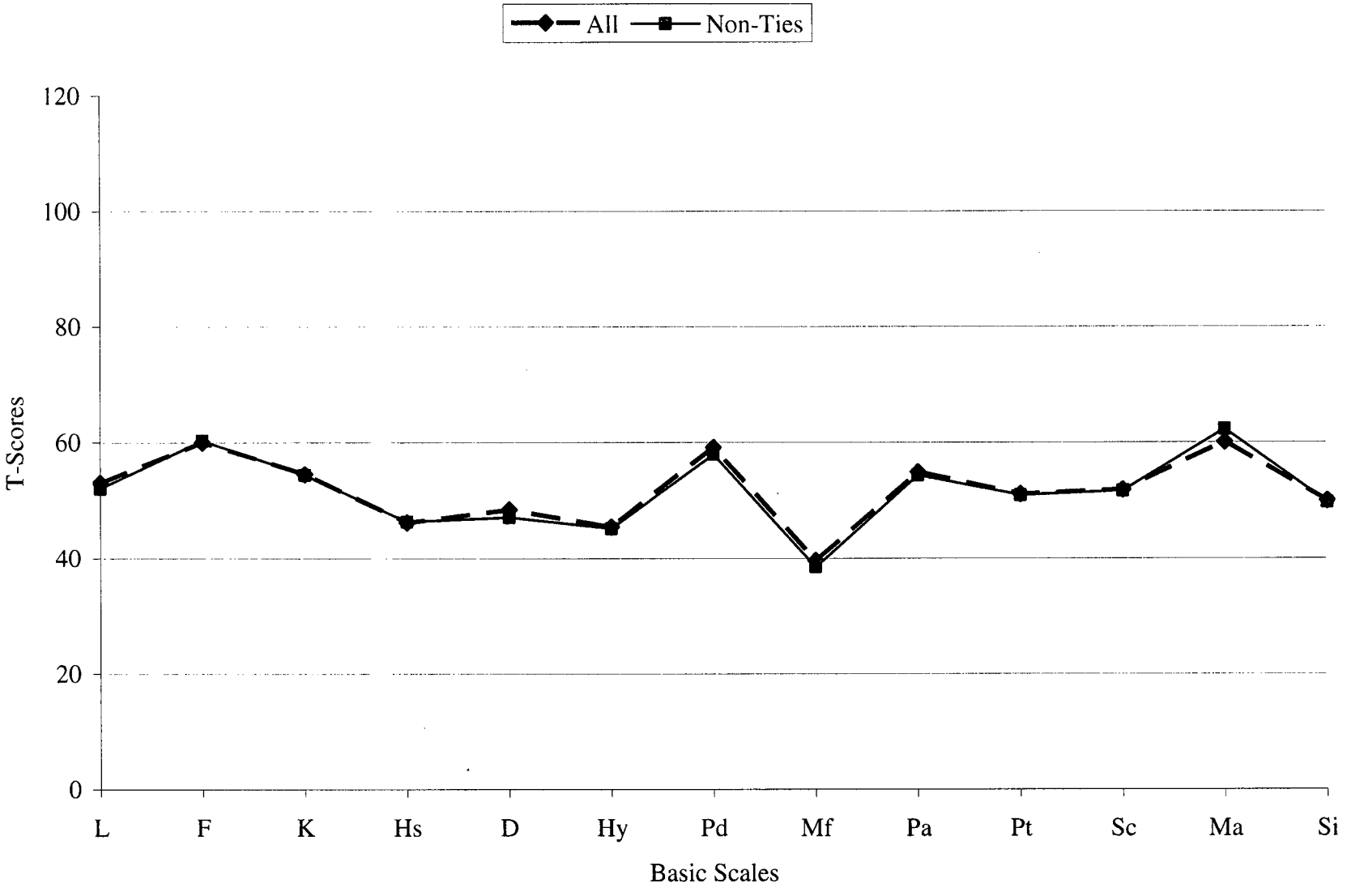
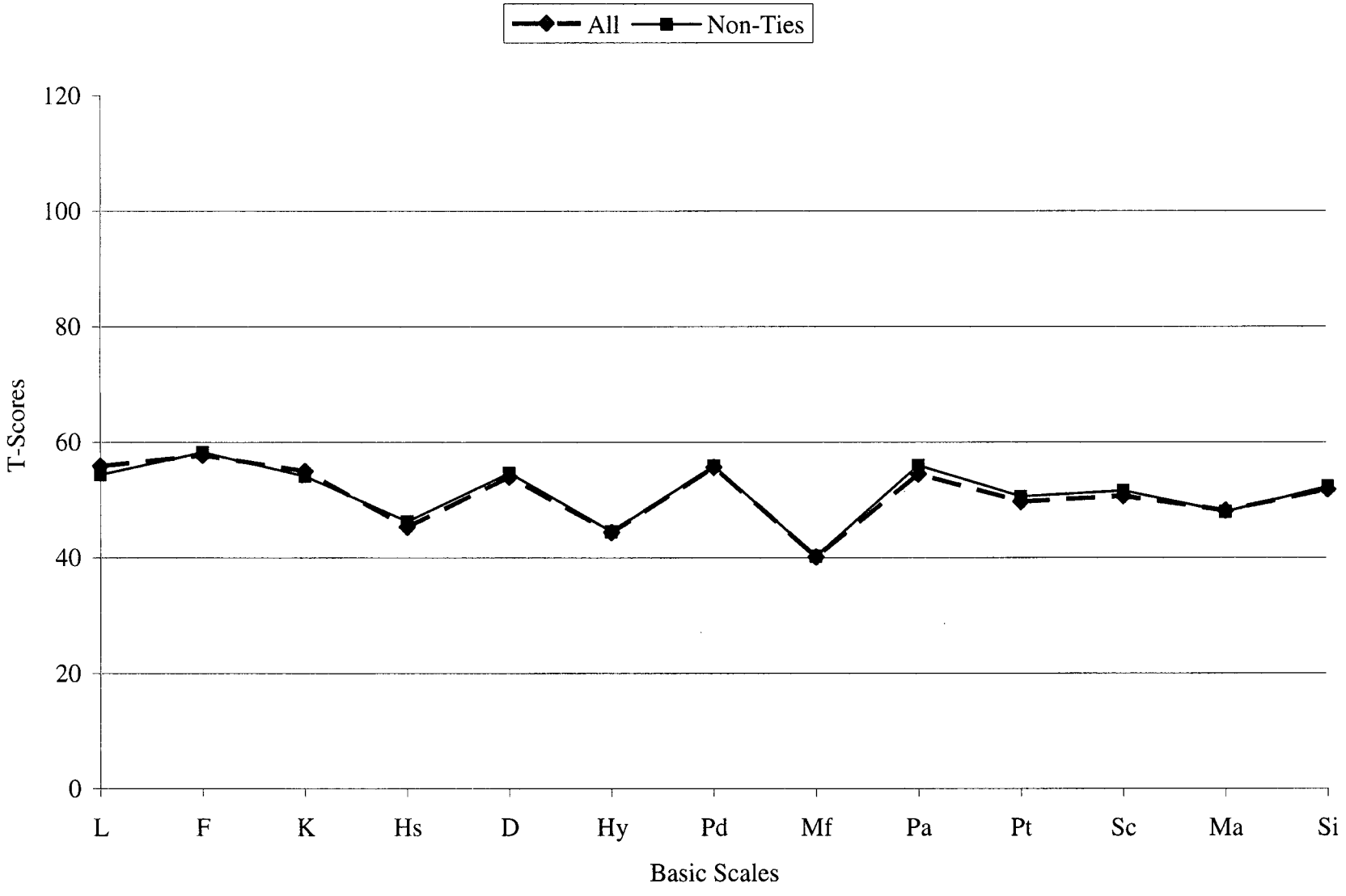

All
Non-Ties
120
100
80
60
40
20
0
T-Scores
L
F
K
Hs
D
Hy
Pd
Mf
Pa
Pt
Sc
Ma
Si
Basic Scales

Figure 2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T-Scores
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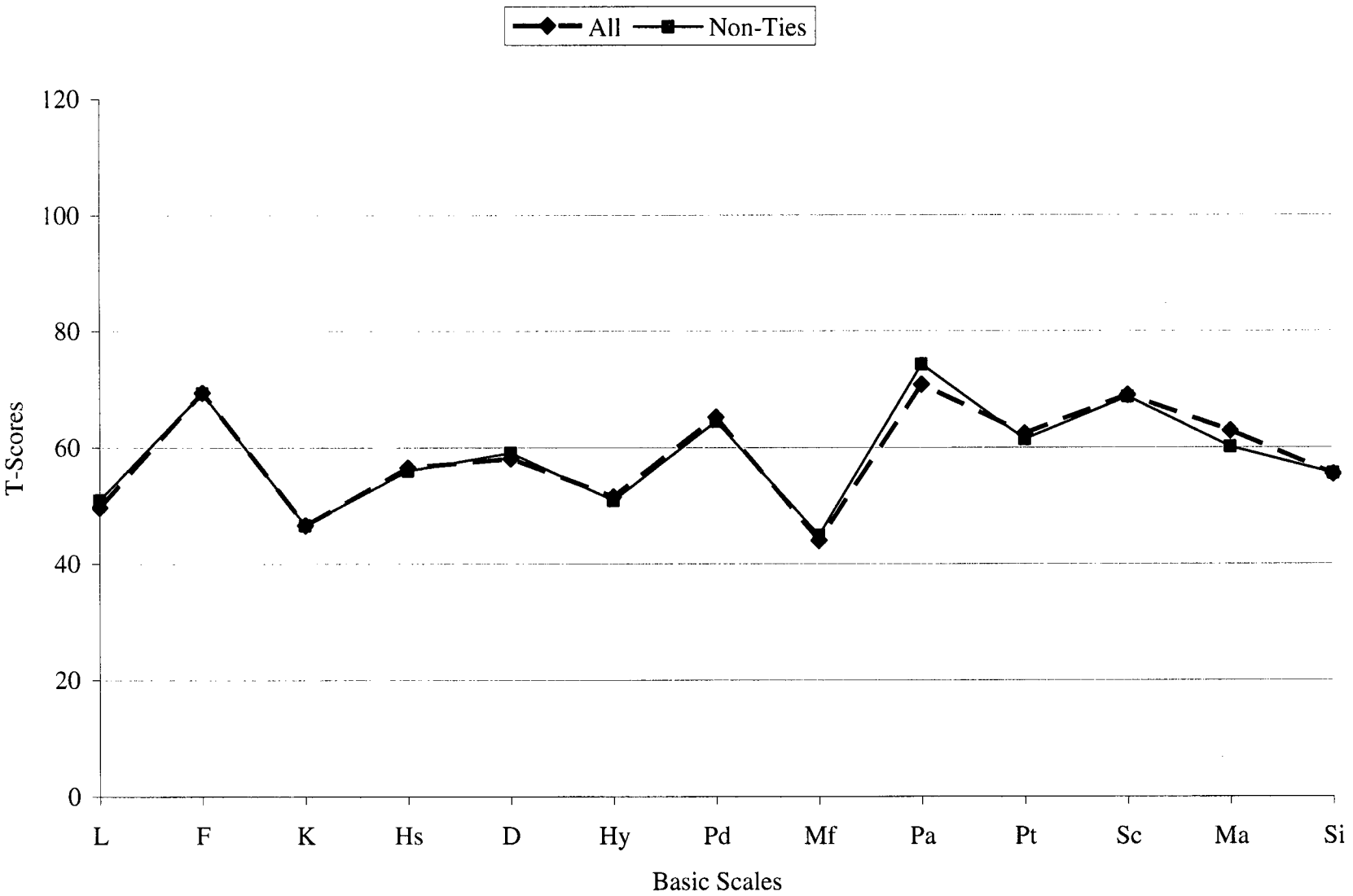
Si
Basic Scales

Figure 3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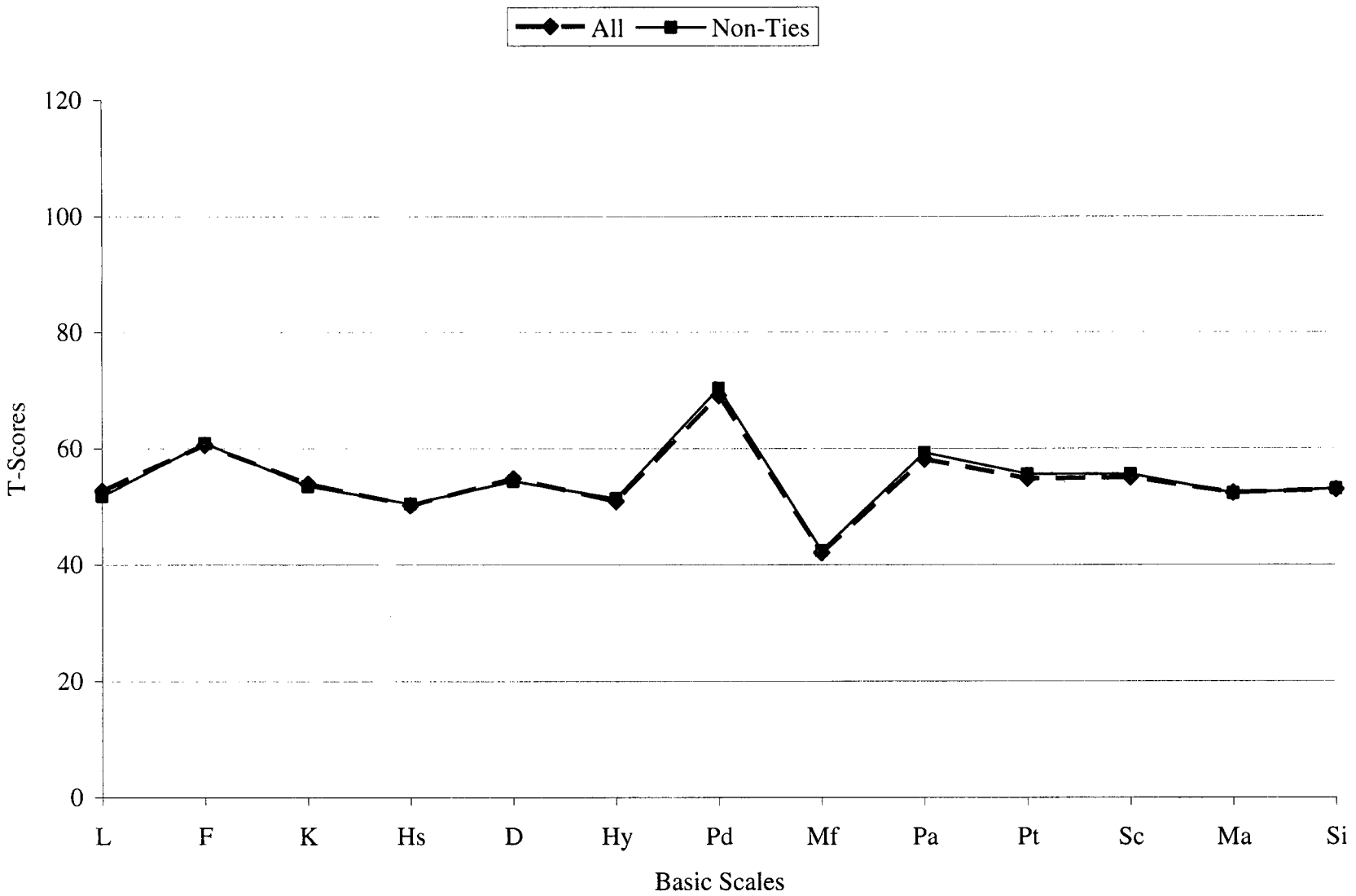
Si
Basic Scales

Figure 4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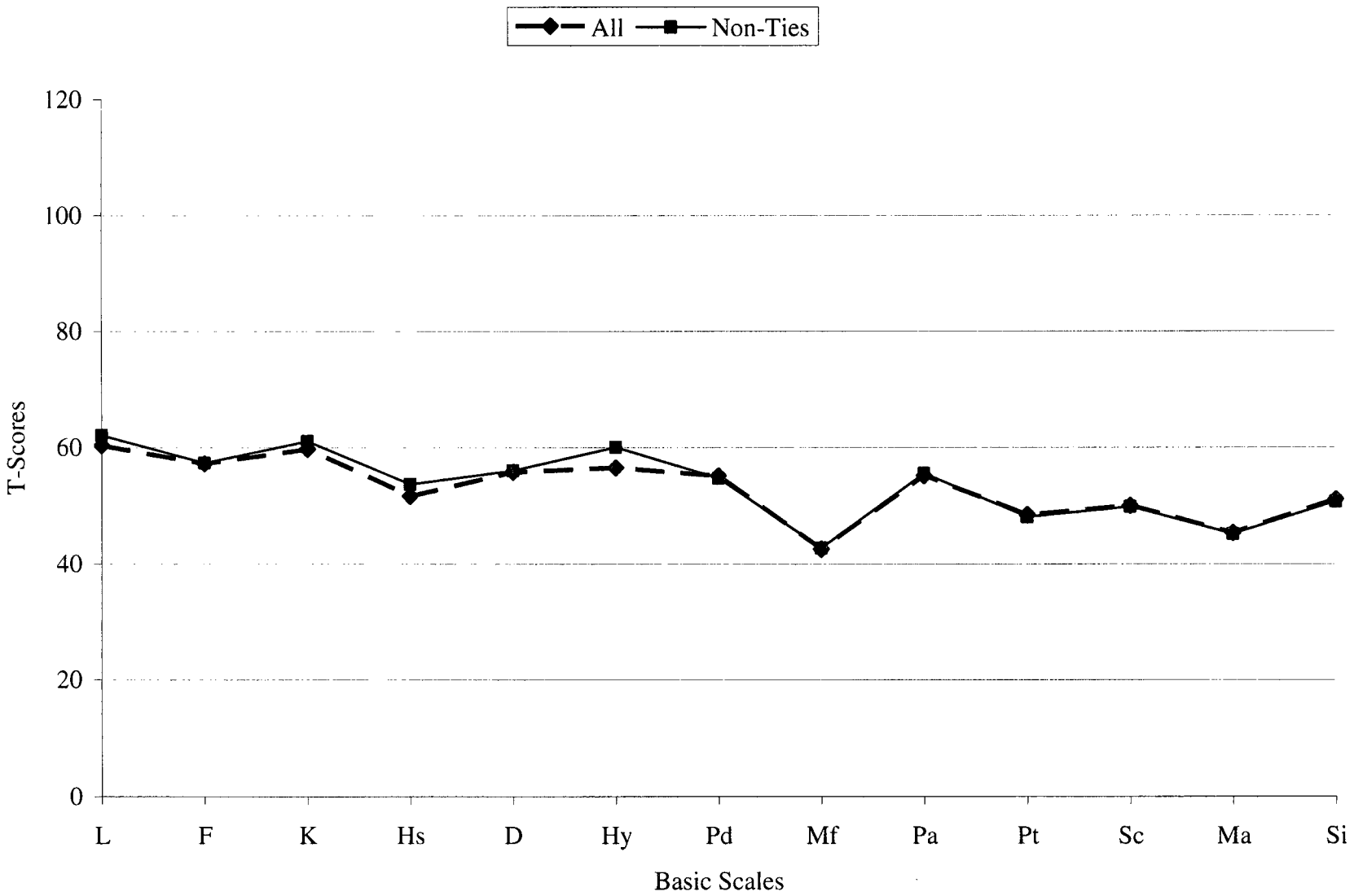
Si
Basic Scales

Figure 5


All
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T-Scores
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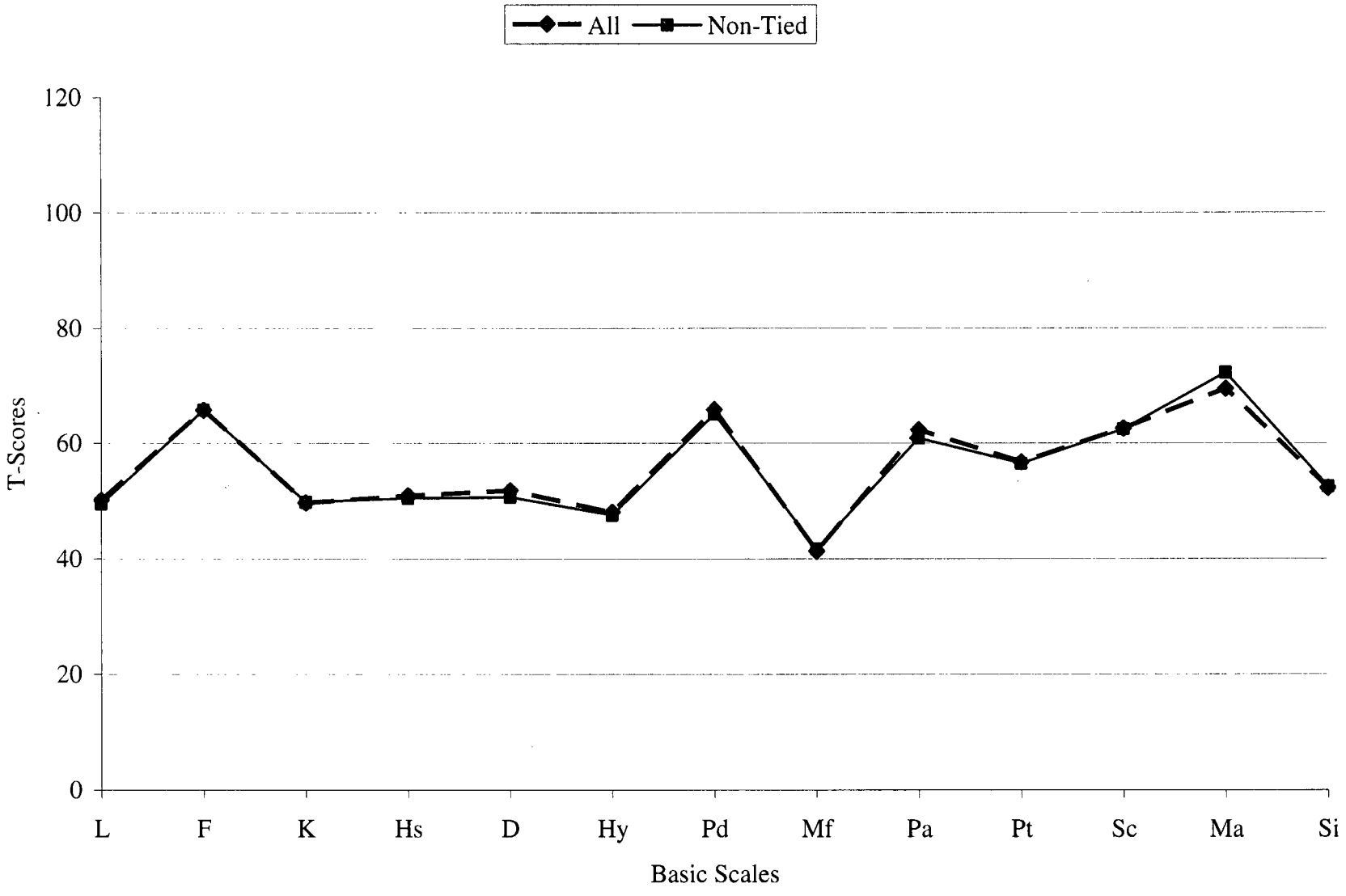
Sc
Ma
Si
Basic Scales

Figure 6


All
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T-Scores
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Mf
Pa
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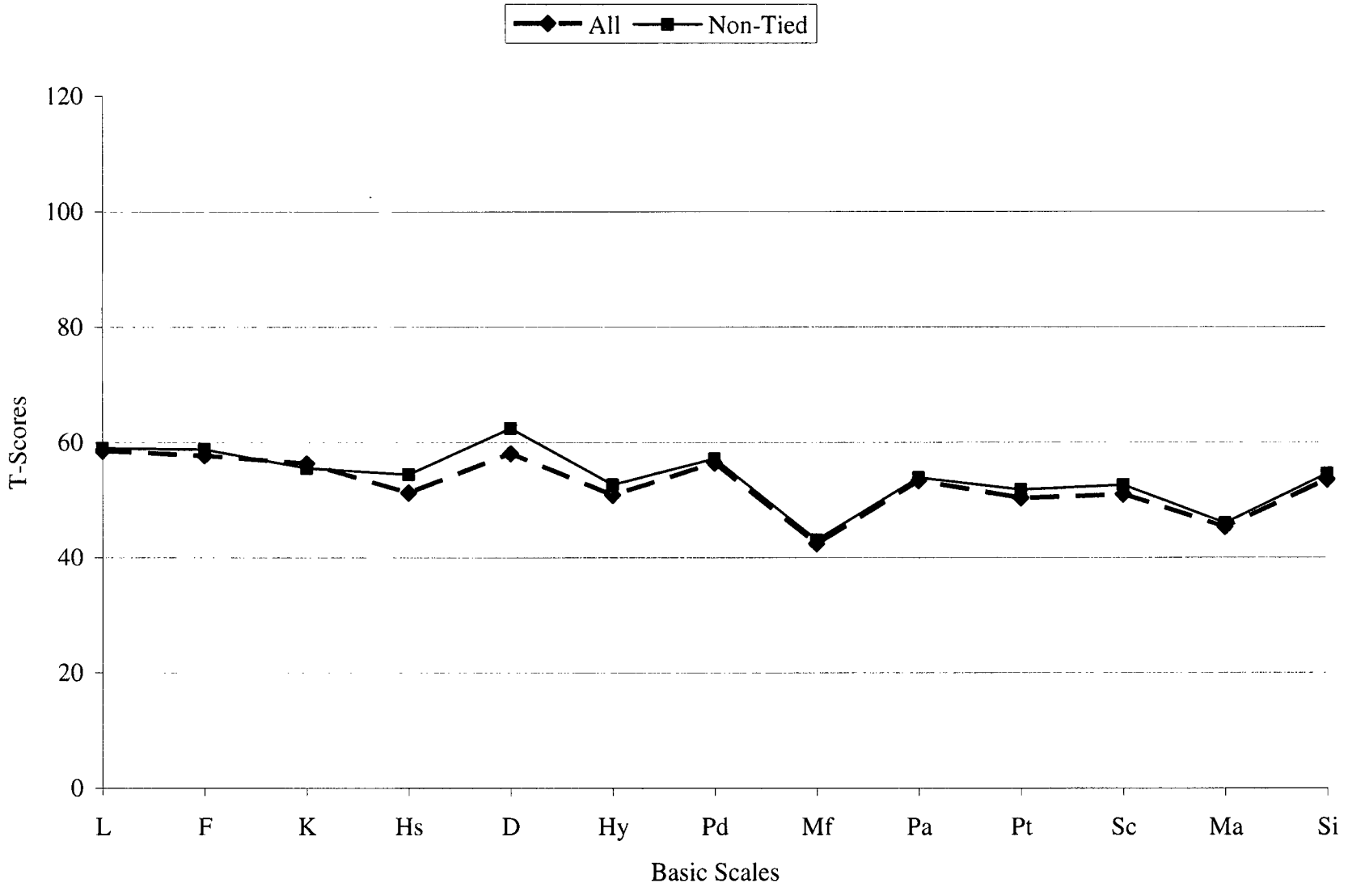
Sc
Ma
Si
Basic Scales

Figure 7


All
Non-Tied
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100
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60
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T-Scores
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Mf
Pa
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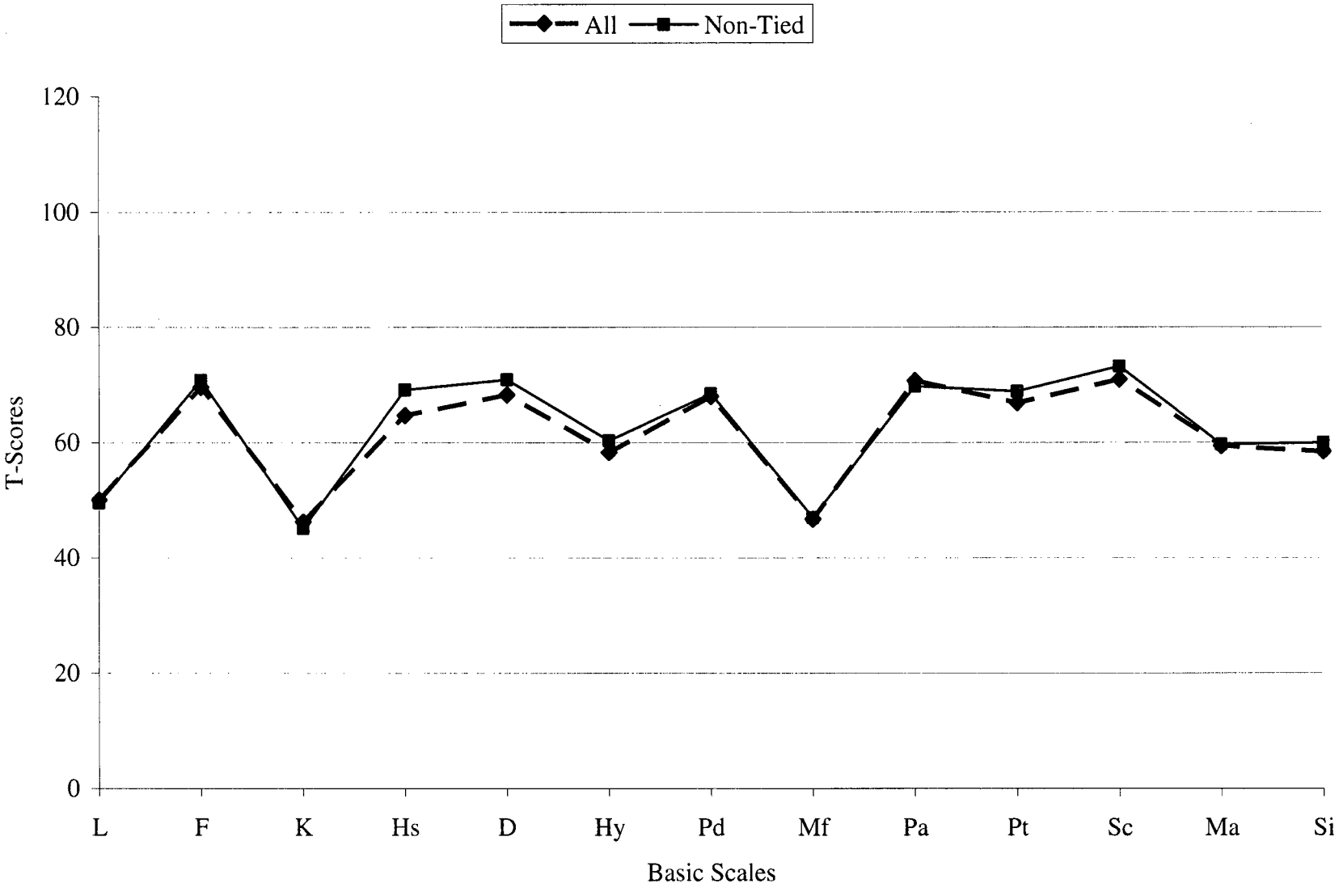
Sc
Ma
Si
Basic Scales

Figure 8


All
Non-Tied
120
100
80
60
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0
T-Scores
L
F
K
Hs
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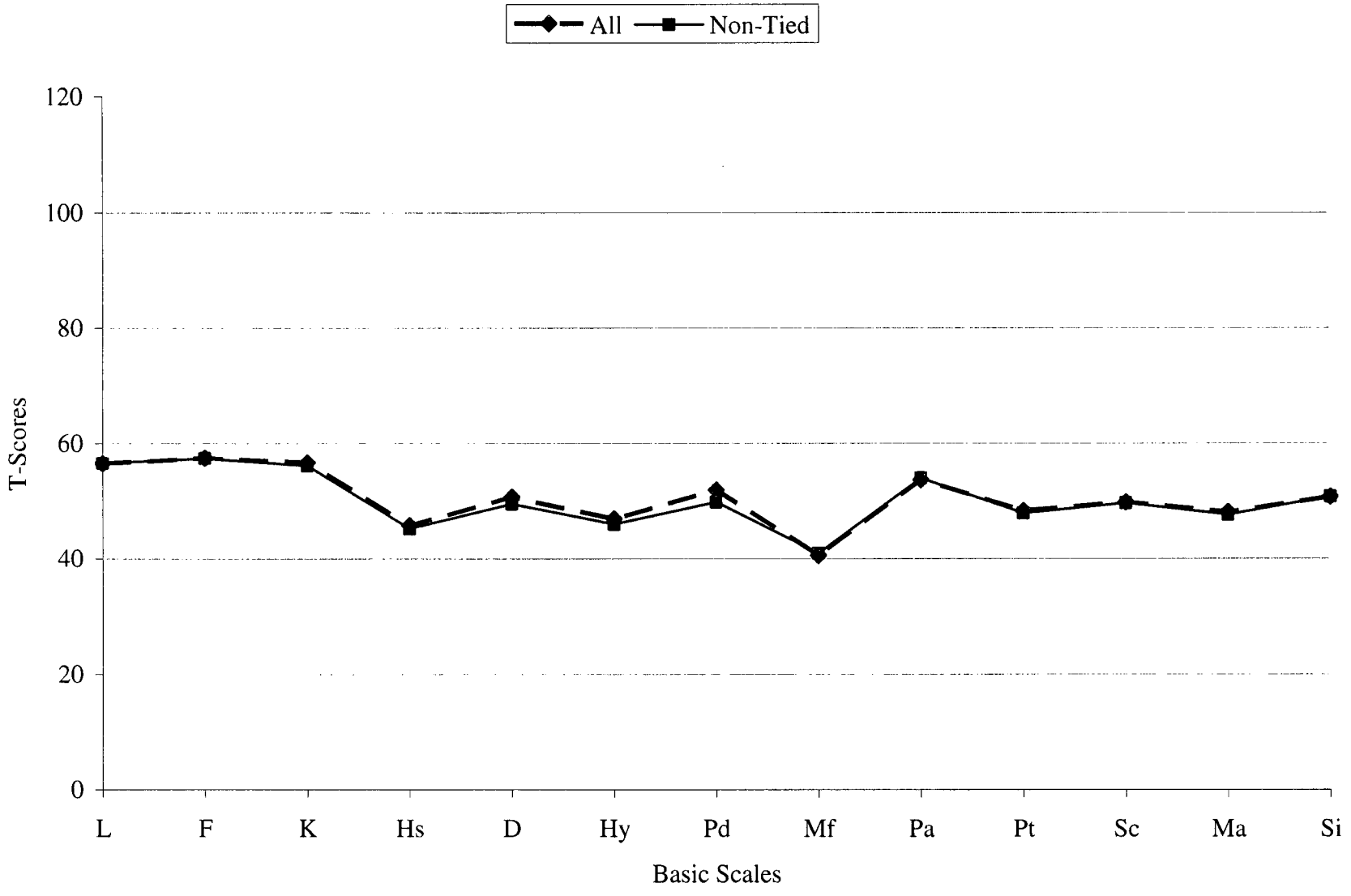
Pd
Mf
Pa
Pt
Sc
Ma
Si
Basic Scales

Figure 9


All
Non-Tied
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T-Scores
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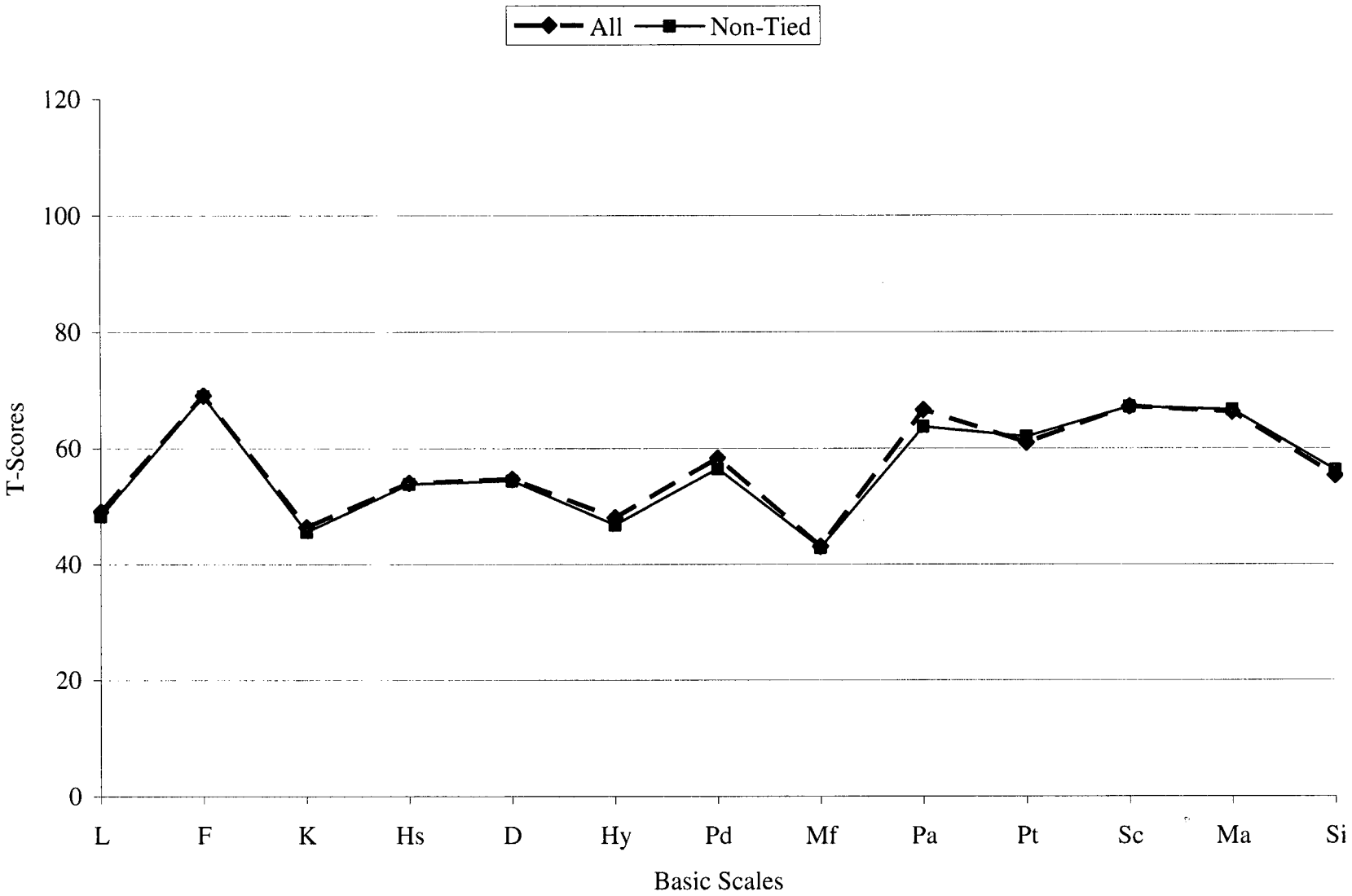
Mf
Pa
Pt
Sc
Ma
Si
Basic Scales

Figure 10


All
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T-Scores
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Pa
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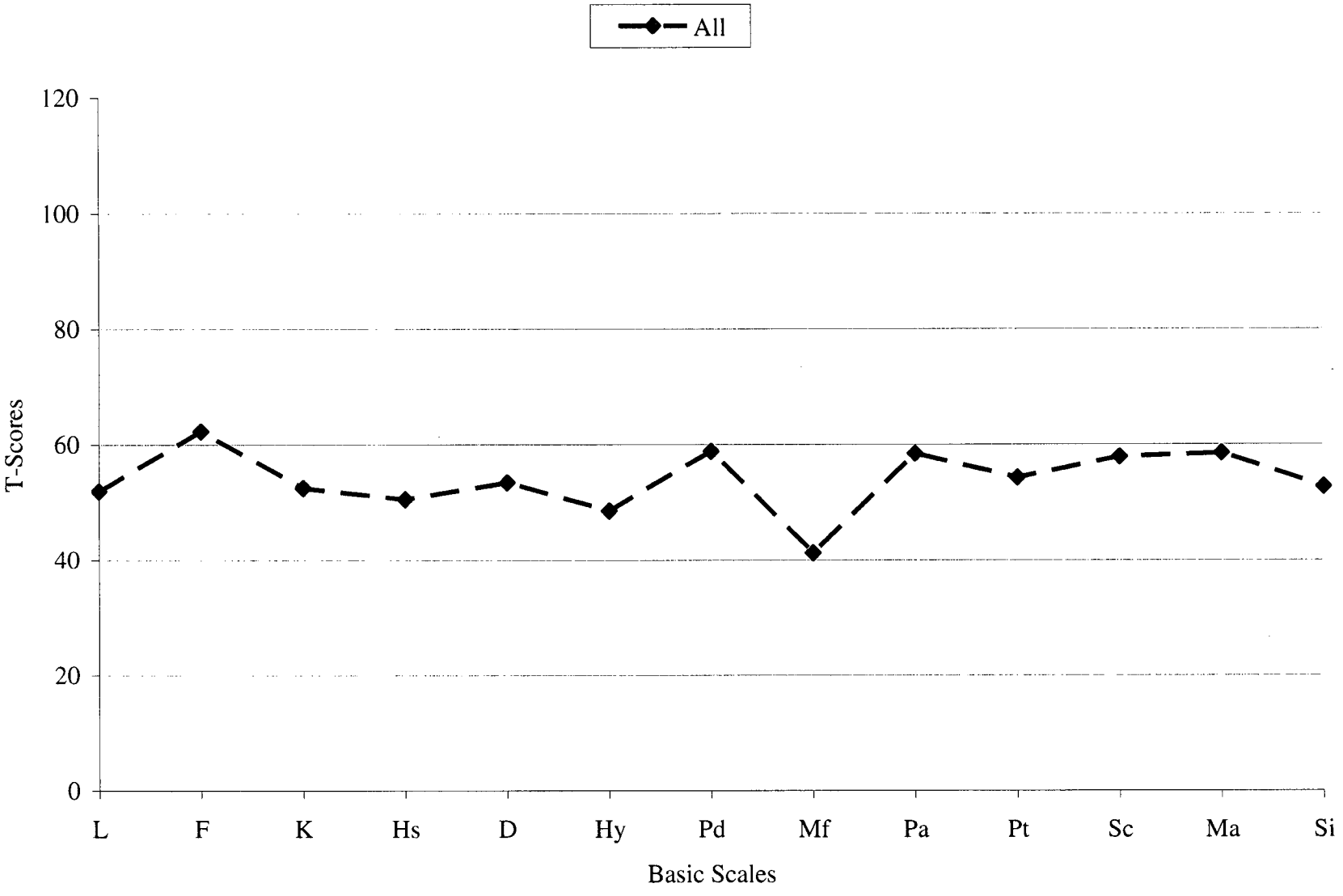
Ma
Si
Basic Scales

Figure 11


All
120
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20
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T-Scores
L
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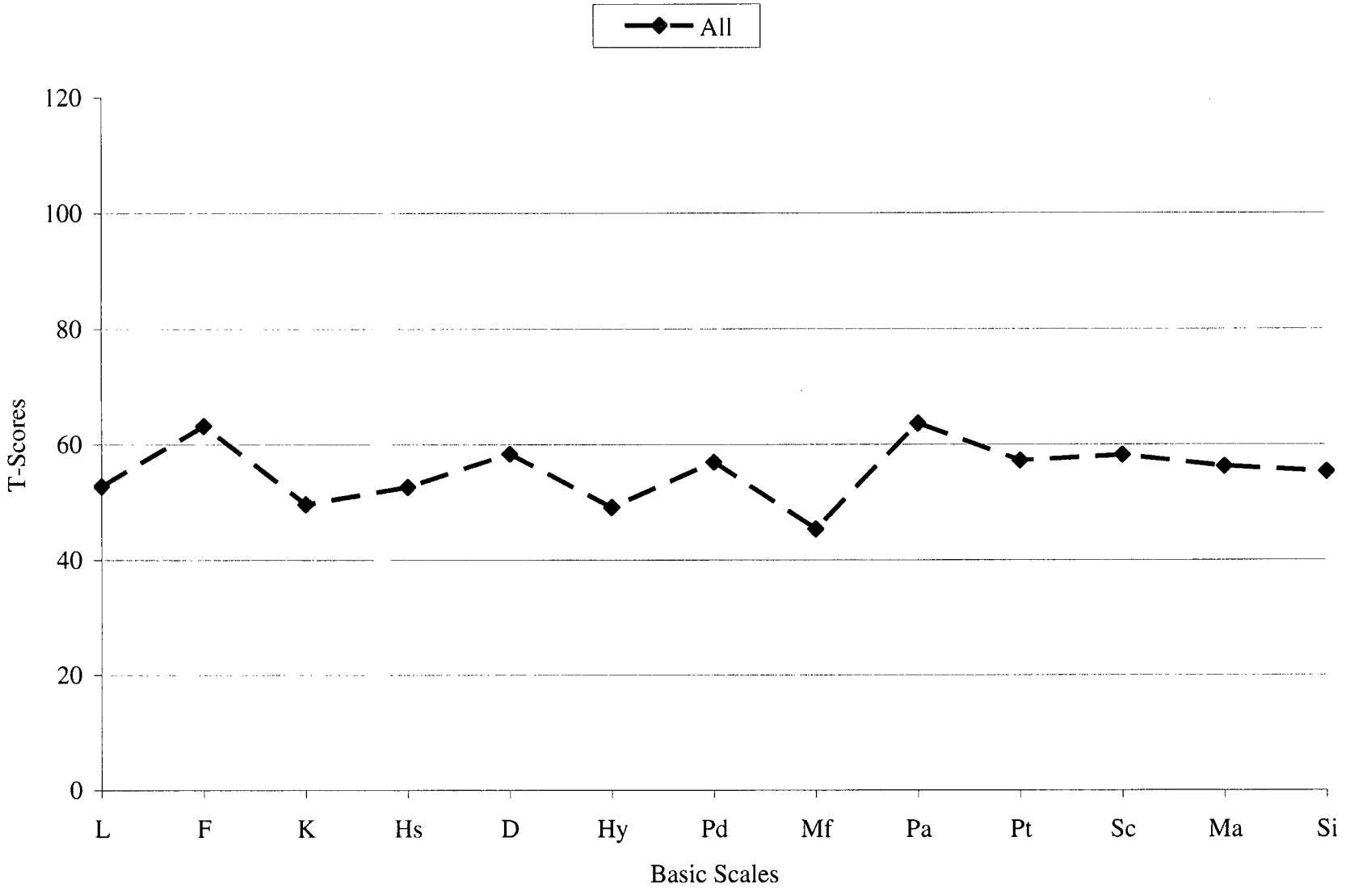
Hy
Pd
Mf
Pa
Pt
Sc
Ma
Si
Basic Scales

Figure 12


All
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100
80
60
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20
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T-Scores
L
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Hs
D
Hy
Pd
Mf
Pa
Pt
Sc
Ma
Si
Basic Scales

Figure 13

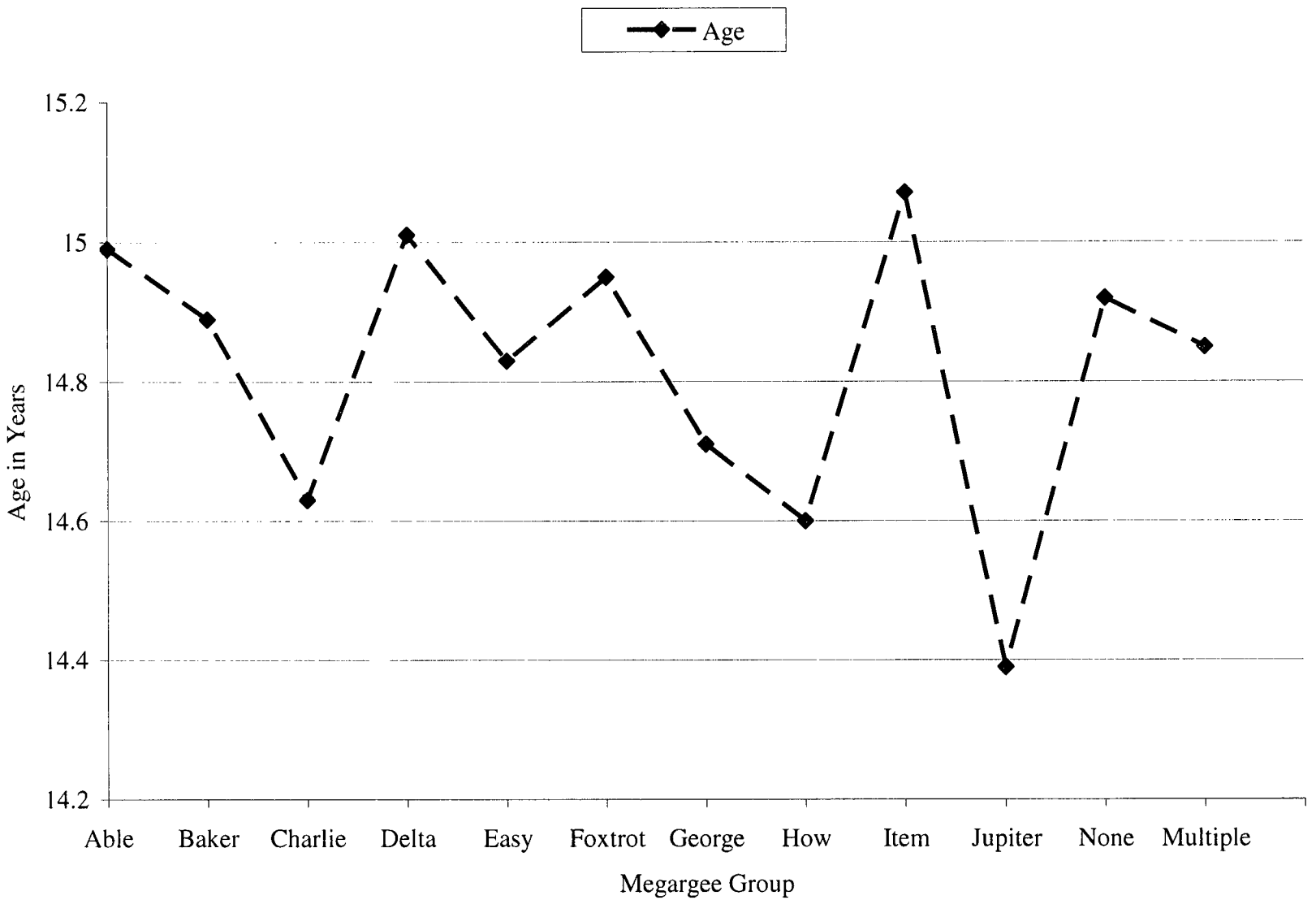

Age
15.2
15
14.8
14.6
14.4
14.2
Age in Years
Able
Baker
Charlie
Delta
Easy
Foxtrot
George
How
Item
Jupiter
None
Multiple
Megargee Group

Figure 14

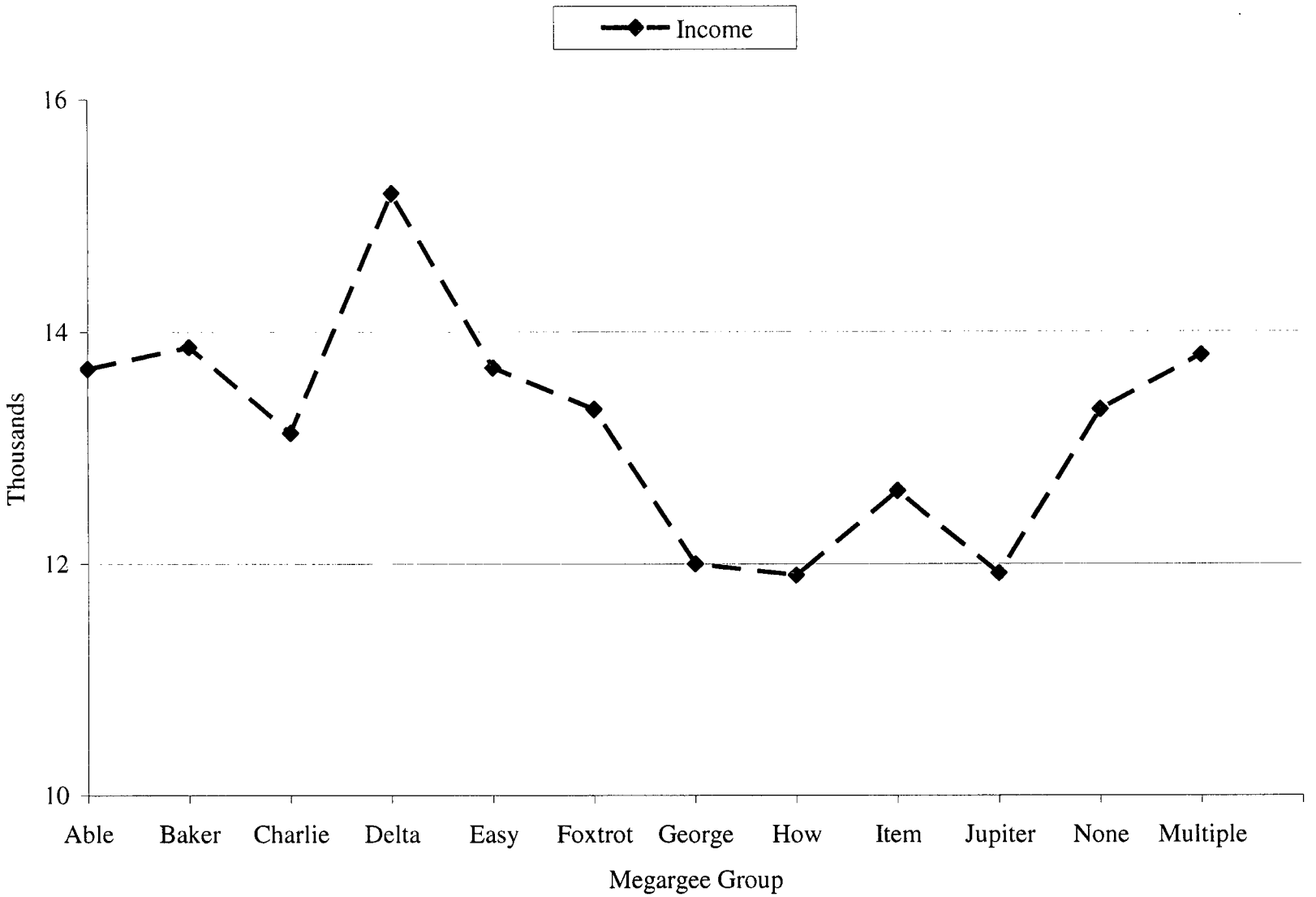
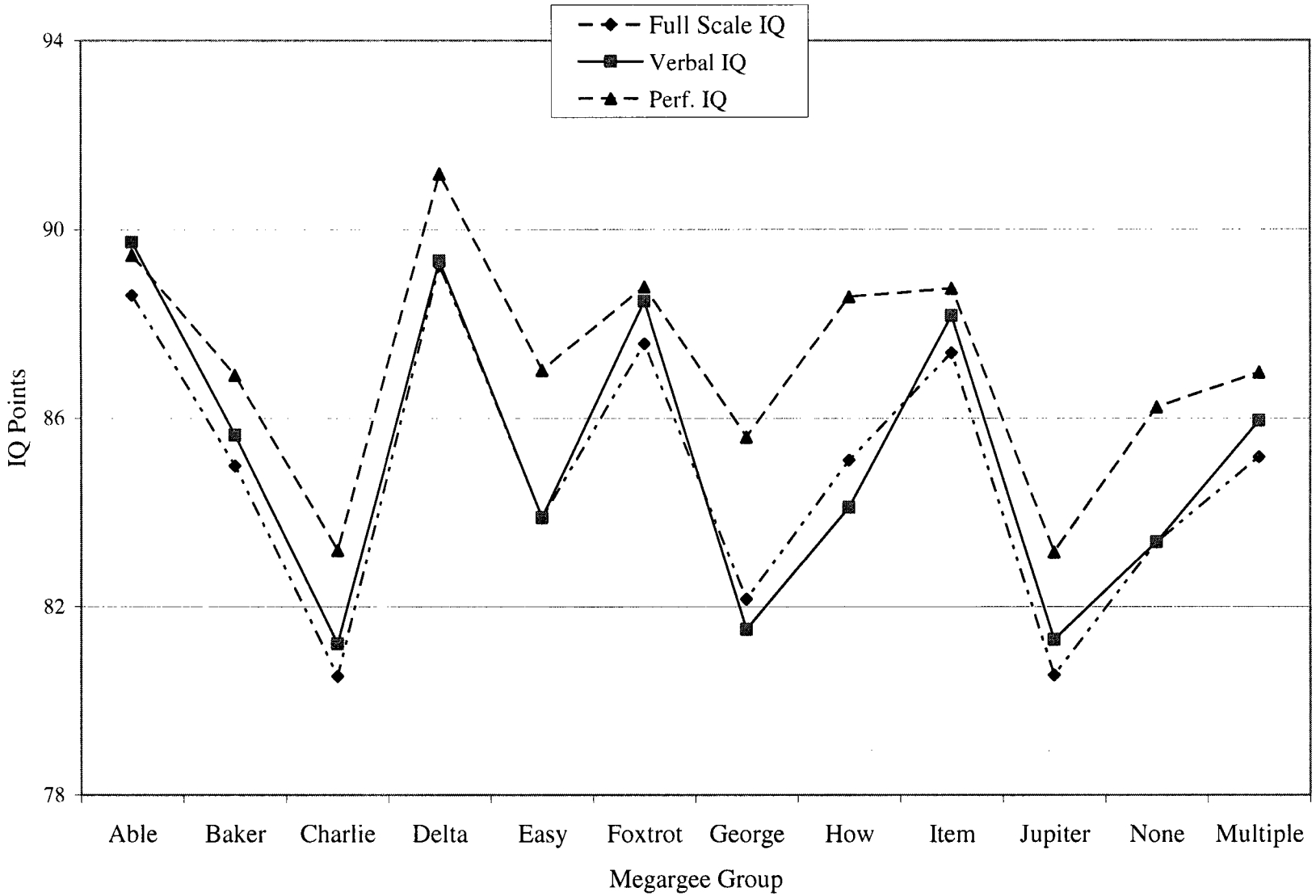

Income
16
14
12
10
Thousands
Able
Baker
Charlie
Delta
Easy
Foxtrot
George
How
Item
Jupiter
None
Multiple
Megargee Group

Figure 15


Full Scale IQ
Verbal IQ
Perf. IQ
94
90
86
82
78
IQ Points
Able
Baker
Charlie
Delta
Easy
Foxtrot
George
How
Item
Jupiter
None
Multiple
Megargee Group

There were four primary outcome variables utilized in the current study which included: seriousness of admitting offense classified into violent, serious/nonviolent, and non-serious; number of previous disposed offenses; most serious prior disposed offense classified into violent, serious/nonviolent, and non-serious; and number of previous commitments to SCDJJ. In addition age at commitment was used in selective analyses. Refer to Table 5 in the methods section for a list and definition of all outcome variables.

A series of chi-square analysis were initially conducted comparing the frequency of distribution of the categorical outcome variables for adolescents categorized in each of the Megargee groups. In each of these analyses, chi-squares were conducted to compare the frequency of classification assignment for those adolescents who were classified into a particular category versus all adolescents. For example, the initial chi-square analysis examined the frequency of classification of adolescents' type of admitting crime into three categories (violent, serious/nonviolent, and non-serious) by classification, for instance Able versus non-Able (a 3X2 chi-square analysis).

Table 9 shows the classification for each Megargee category by type of admitting crime. Chi square analyses were conducted by type of admitting crime. No significant results were found.

Table 9

Type of Admitting Crime by Megargee Classification Type with Associated Ch-Square Analyses

Classification Type	Number of Admitting Crimes by Types: Non-Serious	Serious	Violent	χ^2	Φ	*df*
Able	41	49	15	.21	.00	2
Baker	58	68	23	1.00	.02	2
Charlie	63	62	12	3.65	.04	2
Delta	58	68	14	1.12	.03	2
Easy	62	65	20	.73	.01	2
Foxtrot	34	35	14	1.68	.03	2
George	43	70	19	2.94	.01	2
How	37	40	13	.44	.01	2
Item	223	297	72	2.46	.01	2
Jupiter	47	49	16	.74	.01	2

For the outcome variable of most serious prior offense, chi-square analyses were run for each Megargee category by type of most serious prior. Results are presented in Table 10. The analysis yielded no significant results.

Table 10

Number of Most Serious Prior Offense by Megargee Classification Type with associated Chi-Square Analyses

Classification Type	Number of Most Serious Prior Offenses by Types: Non-Serious	Serious	Violent	χ^2	Φ	*df*
Able	17	77	6	2.11	.02	2
Baker	35	99	13	.87	.01	2
Charlie	33	94	7	1.64	.03	2
Delta	30	97	7	1.18	.03	2
Easy	27	103	11	.63	.00	2
Foxtrot	19	56	5	.36	.01	2
George	32	85	9	1.04	.01	2
How	19	62	5	.42	.02	2
Item	116	405	51	2.90	.03	2
Jupiter	28	70	9	1.54	.01	2

* $p < .05$

Analyses for continuous outcome variables compared the mean number of prior disposed offenses for adolescents classified into each of the ten Megargee group. Table 11 summarizes the means, standard deviations, and t tests comparing the mean scores for adolescents in each particular group against all remaining adolescents. The analysis for the Jupiter group ($M = 3.11$, $SD = 1.44$) yielded significant results, $t\ (112) = 2.10$, $p < .05$.

Table 11

Mean, Standard Deviations, and T-tests for Number of Prior Disposed Offenses by - Megargee Classification Type

Classification Type	N	Mean	SD	*t*	Cohen's *d*
Able	105	3.44	2.15	.01	.00
Baker	149	3.38	1.70	.45	.04
Charlie	137	3.61	1.67	1.26	.11
Delta	140	3.38	1.65	.412	.04
Easy	147	3.42	1.82	.11	.01
Foxtrot	83	3.39	1.66	.27	.03
George	132	3.35	1.65	.61	.05
How	90	3.37	1.61	.39	.04
Item	592	3.49	1.74	.97	.04
Jupiter	112	3.11	1.44	2.10 *	.22

* $p < .05$

Additional analyses compared the mean number of commitments to the SCDJJ for adolescents placed into each Megargee category. Table 12 displays the means, standard deviations, and t tests comparing the scores for each group compared to all remaining groups. Significant results were again noted for the Jupiter group ($M = .16$, $SD = .43$; $t\ (113) = 2.31$, $p < .05$.

Table 12

Mean, Standard Deviations, and T-tests for Number of Prior Commitments to SCDJJ by Megargee Classification Type

Classification Type	N	Mean	SD	*t*	Cohen's *d*
Able	107	.26	.48	.30	.02
Baker	151	.26	.54	.24	.02
Charlie	138	.26	.46	.17	.02
Delta	142	.25	.50	.35	.04
Easy	147	.27	.52	.10	.00
Foxtrot	85	.26	.50	.17	.02
George	133	.27	.51	.06	.00
How	91	.21	.44	1.12	.13
Item	604	.29	.56	1.47	.54
Jupiter	113	.16	.43	2.31 *	.25

* $p < .05$

Further, the mean age for adolescents in each of the Megargee classification categories was compared by mean of *t*-test, with information also provided concerning standard deviation values. Table 13 provides a summary for this data. Significant results were found for groups Charlie $t\,(141) = -2.63$, $p < .01$, How $t\,(92) = -2.25$, $p < .05$, Item $t\,(615) = 4.67$, $p < .001$, and Jupiter $t\,(114) = -4.63$, $p < .001$.

Table 13

Means, Standard Deviations, and T-tests for Age by Megargee Classification Type

Classification Type	N	Mean	SD	*t*	Cohen's *d*
Able	108	14.99	1.20	.90	.09
Baker	153	14.90	1.15	.12	.01
Charlie	141	14.64	1.28	2.63	.22
Delta	143	15.01	1.18	1.22	.11
Easy	149	14.85	1.2	.49	.04
Foxtrot	86	14.95	1.16	.50	.05
George	133	14.70	1.19	1.93	.18
How	92	14.62	1.18	2.25 *	.25
Item	615	15.07	1.12	4.67 ***	.24
Jupiter	114	14.39	1.30	4.63 ***	.44

* $p < .05$, *** $p < .001$

Predictive Analyses: A series of analyses were conducted to examine the extent to which classification into Megargee categories provided information that added incrementally to the information that would be available by examining the presence or absence of elevations on standard MMPI-A basic scales excluding Mf and Si. The first series of analyses utilized hierarchical discriminant functional analyses to predict type of admitting crime classified into categories serious, serious/nonviolent, and non-serious. In the series of analyses, step 1 included the individuals' classification into each Megargee category was coded as a 1 representing membership in that category or 0 representing non-membership. In step 2, individuals' scores from the 8 MMPI-A basic scales were entered categorized as 0 for subclinical scales or 1 for scales that produced t-scores values equal to or greater than 65. The 10 analyses were conducted utilizing the classifications of each of the 10 Megargee categories in step 1 followed by the 8 clinical scales. The process was then reversed, conducting 10 discriminant functional analyses in which the values from the 8 clinical scales were entered in step 1, and the individual's membership into the

Megargee classification system was entered as step 2. No significant results were yielded.

To investigate the predictive utility of particular demographic variables, a stepwise DFA was used. The variables age, Full Scale IQ, and ethnicity were entered into a DFA predicting to type of admitting crime. No significant results were found.

The second set of analyses utilized hierarchical discriminant functional analyses to predict most serious prior disposed offense categorized into serious, serious/nonviolent, and non-serious. As with the previous DFAs, two steps were followed. Step 1 included the individuals' classification into each Megargee category was coded as a 1 representing membership in that category or 0 representing non-membership, and in step 2, individuals' scores from the 8 MMPI-A basic scales were entered categorized as 0 for subclinical scales or 1 for scales that produced t-scores values equal to or greater than 65. The 10 analyses were conducted utilizing the classifications of each of the 10 Megargee categories in step 1 followed by the 8 clinical scales. The process was then reversed, conducting 10 discriminant functional analyses in which the values from the 8 clinical scales were entered in step 1, and the individual's membership into the Megargee classification system was entered as step 2. No significant results were found.

To investigate the predictive utility of demographic variables, a stepwise DFA was used. The variables age, Full Scale IQ, and ethnicity were entered into a DFA predicting to most serious prior offense. No significant results were found.

In the case of continuous variables (i.e., number of prior disposed offenses, number of prior commitment to SCDJJ, and age at commitment), a series of step-wise multiple regression were used to predict each outcome variable in which the first step is the

classification of the participant into the Megargee classification category, and the second step included the use of data from each of the ten MMPI-A basic scales categorized as either having a T-score of 64 and below or a T-score of 65 and above. This process was then reversed, with step 1 of the hierarchical regression consisting of the dichotomized predictor variables from each of the basic scales and step 2 consisting of the dichotomized Megargee classifications. This procedure was used for each of the 10 Megargee Categories, totaling 20 analyses. Cumulative values are rounded up when appropriate. The presented R and R^2 in each step 2 of Tables 13 through 42 are cumulative representing the total variance accounted for by combining predictors entered in step 1 and step 2.

Table 14 summarizes the findings for the Able group predicting the number of prior disposed offenses. Both step-wise regressions are illustrated. No significant findings were noted among the Models.

Table 14
(N = 105)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Able)	.000	.000		.000
2 (Clinical Scales)	.046	.002	.002	.349
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Able)	.046	.002	.000	.003

The findings for the Baker category predicting the number of prior disposed offenses are represented in Table 15. The two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. Results yielded no significant findings.

Table 15
(N = 149)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Baker)	.011	.000		.197
2 (Clinical Scales)	.047	.002	.002	.353
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Baker)	.047	.002	.000	.239

Table 16 summarizes the findings for the Charlie category predicting the number of prior disposed offenses. Both step-wise regressions are depicted. No significant findings were noted among the models.

Table 16
(N = 137)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Charlie)	.031	.001		1.582
2 (Clinical Scales)	.054	.003	.002	.325
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Charlie)	.054	.003	.001	1.331

The findings for the Delta category predicting the number of prior disposed offenses are represented in Table 17. Two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. Results yielded no significant findings.

Table 17
(N = 140)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Delta)	.010	.000		.168
2 (Clinical Scales)	.048	.002	.002	.378
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Delta)	.048	.002	.000	.457

Table 18 summarizes the findings for the Easy group predicting the number of prior disposed offenses. Both of the step-wise regressions are depicted. No significant findings were noted among the models.

Table 18
(N = 147)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Easy)	.002	.000		.010
2 (Clinical Scales)	.046	.002	.002	.349
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Easy)	.046	.002	.000	.012

The findings for the Foxtrot category predicting the number of prior disposed offenses are represented in Table 19. The two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. Results yielded no significant findings.

Table 19
(N = 83)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Foxtrot)	.007	.000		.074
2 (Clinical Scales)	.046	.002	.002	.353
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Foxtrot)	.046	.002	.000	.111

Table 20 illustrates the findings for the George group predicting number of prior disposed offenses. Both of the step-wise regressions are summarized. No significant findings were yielded among the models.

Table 20
(N = 132)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (George)	.015	.000		.367
2 (Clinical Scales)	.049	.002	.002	.362
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (George)	.049	.002	.000	.493

The findings for the How category predicting number of prior disposed offenses are depicted in Table 21. The two separate step-wise regressions are illustrated, each consisting of two steps represented by Model 1 and Model 2. The analyses yielded no significant findings.

Table 21
(N = 90)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (How)	.010	.000		.152
2 (Clinical Scales)	.046	.002	.002	.337
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (How)	.046	.002	.000	.034

Table 22 depicts the findings for the Item group predicting number of prior disposed offenses. Both of the regressions are summarized. No significant findings were yielded among the models.

Table 22
(N = 592)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Item)	.024	.001		.959
2 (Clinical Scales)	.058	.003	.002	.468
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Item)	.058	.003	.001	2.140

The findings for the Jupiter category predicting the number of prior disposed offenses are depicted in Table 23. The two separate regressions are illustrated, each consisting of two steps represented by Model 1 and Model 2. Significant results were found for Model 1 ($\beta = .05$), $F(112) = 4.37$, $p < .05$, as well as for Model 2 ($\beta = .07$), $F(112) = 5.20$, $p < .05$.

Table 23
(N = 112)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Disposed Offenses

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Jupiter)	.051	.003		4.369*
2 (Clinical Scales)	.072	.005	.002	.434
Model 2				
1 (Clinical Scales)	.046	.002		.349
2 (Jupiter)	.072	.005	.003	5.199*

* $p < .05$

To examine predictive utility of particular demographic variables a Stepwise Regression was used for the outcome variable number of prior offenses. The variables age, Full Scale IQ, and ethnicity were regressed onto number of prior offenses. Significant results were only found for the variable age ($\beta = .11$), $F\ (1401) = 17.16$, $p < .001$. Table 24 depicts these results.

Table 24
(N = 1401)

Summary of Stepwise Regression Analysis for Age Predicting to Prior Number of Prior Disposed Offenses

Predictor	*R*	R^2	R^2 Change	*F* Change
Age	.110	.012	.012	17.163***

*** $p < .001$

With regards to the outcome variable number of prior commitments to SCDJJ, a series of step-wise multiple regression were also used. In the first step, the classification of the participant into the Megargee classification category was entered, while the second step included the use of data from each of the ten MMPI-A basic scales categorized as either having a T-score of 64 and below or a T-score of 65 and above. This process was then reversed, totaling 20 analyses. Cumulative values are rounded up when appropriate.

Table 25 summarizes the findings for the Able group predicting the number of prior commitments. Both step-wise regressions are illustrated. No significant findings were noted among the Models.

Table 25
(N = 107)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Able)	.003	.000		.020
2 (Clinical Scales)	.086	.007	.007	1.272
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Able)	.086	.007	.000	.102

The findings for the Baker category predicting the number of prior commitments are presented in Table 26. The two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. Results yielded no significant findings.

Table 26
(N = 151)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Baker)	.006	.000		.065
2 (Clinical Scales)	.087	.008	.008	1.287
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Baker)	.087	.008	.001	.292

Table 27 summarizes the findings for the Charlie category predicting the number of prior SCDJJ commitments. Both step-wise regressions are depicted. No significant findings were noted among the models.

Table 27
(N = 138)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Charlie)	.004	.000		.033
2 (Clinical Scales)	.086	.007	.007	1.269
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Charlie)	.086	.007	.000	.083

The findings for the Delta category predicting the number of prior commitments are presented in Table 28. Two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. Results yielded no significant findings.

Table 28
(N = 142)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Delta)	.009	.000		.130
2 (Clinical Scales)	.087	.007	.007	1.268
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Delta)	.087	.007	.000	.170

Table 29 summarizes the findings for the Easy group predicting the number of prior commitments to the SCDJJJ. Both of the step-wise regressions are depicted. No significant findings were noted among the models.

Table 29
(N = 147)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Easy)	.002	.000		.007
2 (Clinical Scales)	.086	.007	.007	1.264
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Easy)	.086	.007	.000	.006

The findings for the Foxtrot category predicting the number of prior departmental commitments represented in Table 30. The two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. Results yielded no significant findings.

Table 30
(N = 85)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Foxtrot)	.004	.000		.031
2 (Clinical Scales)	.086	.007	.007	1.264
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Foxtrot)	.086	.007	.000	.034

Table 31 illustrates the findings for the George group predicting number of prior SCDJJ commitments. Both of the step-wise regressions are summarized. No significant findings were yielded among the models.

Table 31
(N = 133)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (George)	.001	.000		.002
2 (Clinical Scales)	.086	.007	.007	1.264
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (George)	.086	.007	.000	.000

The findings for the How category predicting number of prior commitments to the SCDJJ are depicted in Table 32. The two separate step-wise regressions are illustrated, each consisting of two steps represented by Model 1 and Model 2. The analyses yielded no significant findings.

Table 32
(N = 91)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (How)	.027	.000		1.271
2 (Clinical Scales)	.086	.007	.007	1.137
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (How)	.086	.007	.000	.001

Table 33 depicts the findings for the Item group predicting number of prior departmental commitments. Both of the regressions are summarized. No significant findings were yielded among the models.

Table 33
(N = 604)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Item)	.035	.001		2.070
2 (Clinical Scales)	.091	.008	.007	1.204
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Item)	.091	.008	.001	1.461

The findings for the Jupiter category predicting the number of prior commitments are depicted in Table 34. The two separate regressions are illustrated, each consisting of two steps represented by Model 1 and Model 2. Significant results were found for Model 1 ($\beta = .06$), $F(113) = 5.36$, $p < .05$, as well as for Model 2 ($\beta = .10$), $F(113) = 5.24$, $p < .05$.

Table 34
(N = 113)

Summary of Hierarchical Regression Analysis for Variables Predicting Number of Prior Commitments to SCDJJ

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Jupiter)	.056	.003		5.360*
2 (Clinical Scales)	.102	.010	.007	1.255
Model 2				
1 (Clinical Scales)	.086	.007		1.265
2 (Jupiter)	.102	.010	.003	5.238*

* $p < .05$

To examine predictive utility of demographic variables a Stepwise Regression was used for the outcome variable number of prior commitments. The variables age, Full Scale IQ, and ethnicity were regressed onto number of prior commitments. As previous, significant results were only found for the variable age ($\beta = .29$), F (1420) = 125.40, $p < .001$. Table 35 depicts these results.

Table 35
(N = 1711)

Summary of Stepwise Regression Analysis for Age Predicting to Prior Number of Prior Commitments

Predictor	*R*	R^2	R^2 Change	*F* Change
Age	.285	.081	.081	125.404***

*** $p < .001$

As with prior outcome variables, to examine age at commitment a series of step-wise multiple regressions were utilized. The classification of the participant into the Megargee classification category was entered into step 1, while the second step included the use of data from each of the ten MMPI-A basic scales categorized as either having a T-score of 64 and below or a T-score of 65 and above. This process was then reversed equaling 20 total analyses. Cumulative values are rounded up when appropriate.

Table 36 summarizes the findings for the Able group predicting age at commitment. Both step-wise regressions are illustrated. Significant findings were found for the clinical scales in step 1 ($\beta = .14$), $F\ (108) = 3.50$, $p < .001$, and for step 2 ($\beta = .14$), $F\ (108) = 3.51$, $p < .001$.

Table 36
(N = 108)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Able)	.022	.000		.800
2 (Clinical Scales)	.142	.020	.020	3.462 ***
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Able)	.142	.020	.000	.360

*** $p < .001$

The findings for the Baker category predicting age at commitment are presented in Table 37. The two separate regressions are illustrated, each consisting of two steps

depicted by Model 1 and Model 2. The clinical scales again yielded significant results, step 1 ($\beta = .14$), F (153) = 3.56, $p < .001$, and for step 2 ($\beta = .14$), F (153) = 3.51, $p < .001$.

Table 37
(N= 153)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Baker)	.003	.000		.013
2 (Clinical Scales)	.142	.020	.020	3.558 ***
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Baker)	.142	.020	.000	.522

*** $p < .001$

Table 38 summarizes the findings for the Charlie category predicting age at commitment. Both step-wise regressions are depicted. Membership in the Charlie group significantly predicted age at commitment in step 1 ($\beta = .06$), F (141) = 6.95, $p < .01$. However the clinical scales produced significant results for both step 1 ($\beta = .14$), F (141) = 2.96, $p < .01$, and step 2 ($\beta = .14$), F (141) = 3.51, $p < .001$.

Table 38
(N = 141)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Charlie)	.063	.004		6.946 **
2 (Clinical Scales)	.144	.021	.017	2.962 **
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Charlie)	.144	.021	.001	1.546

** $p < .01$, *** $p < .001$

The findings for the Delta category predicting age at commitment are presented in Table 39. Two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. The clinical scales significantly predicted age at commitment, both step 1 ($\beta = .14$), F (143) = 3.37, $p < .001$, and step 2 ($\beta = .14$), F (143) = 3.51, $p < .001$.

Table 39
(N = 143)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Delta)	.029	.001		1.467
2 (Clinical Scales)	.142	.020	.019	3.367 ***
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Delta)	.142	.020	.000	.089

*** $p < .001$

Table 40 summarizes the findings for the Easy group predicting age at commitment. Both of the step-wise regressions are depicted. The clinical scales again predicted significant results, in both step 1 ($\beta = .14$), F (149) = 3.52, $p < .001$ and step 2 ($\beta = .14$), F (149) = 3.51, $p < .001$.

Table 40
(N =149)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Easy)	.012	.000		.240
2 (Clinical Scales)	.142	.020	.020	3.518***
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Easy)	.142	.020	.000	.356

*** $p < .001$

The findings for the Foxtrot category predicting age at commitment are presented in Table 41. The two separate regressions are illustrated, each consisting of two steps depicted by Model 1 and Model 2. The clinical scales significantly predicted age at commitment; step 1($\beta = .14$), F (86) = 3.63, $p < .001$ and step 2 ($\beta = .14$), F (86) = 3.51, $p < .001$.

Table 41
(N = 86)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Foxtrot)	.012	.000		.246
2 (Clinical Scales)	.144	.021	.021	3.631 ***
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Foxtrot)	.144	.021	.001	1.464

*** $p < .001$

Table 42 illustrates the findings for the George group predicting age at commitment. Both of the step-wise regressions are summarized. The clinical scales again yielded significant results; step 1 ($\beta = .15$), $F(133) = 3.51$, $p < .001$ and step 2 ($\beta = .14$), $F(133) = 3.51$, $p < .001$.

Table 42
(N = 133)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (George)	.047	.002		3.750
2 (Clinical Scales)	.149	.022	.020	3.509***
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (George)	.149	.022	.002	3.751

*** $p < .001$

The findings for the How category predicting age at commitment are illustrated in Table 43. The two separate step-wise regressions are illustrated, each consisting of two steps represented by Model 1 and Model 2. In Model 1, both the How Megargee group ($\beta = .05$), F (92) = 5.07, $p < .05$ and clinical scales ($\beta = .14$), F (92) = 3.07, $p < .001$ significantly predicted age. However, only the clinical scales produced significant results in Model 2, ($\beta = .14$), F (92) = 3.51, $p < .001$.

Table 43
(N = 92)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (How)	.054	.003		5.066 *
2 (Clinical Scales)	.143	.020	.017	3.065 **
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (How)	.143	.020	.000	.700

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 44 depicts the findings for the Item group predicting age at commitment. Both of the regressions are summarized. The Item Megargee category produced significant results in step 1 ($\beta = .11$), F (615) = 21.66, $p < .001$, and step 2 ($\beta = .19$), F (315) = 8.95, $p < .01$. The clinical scales also yielded significant predictions; step 1 ($\beta = .16$), F (615) = 2.24, $p < .001$ and in step 2 ($\beta = .14$), F (615) = 3.51, $p < .001$.

Table 44
(N = 615)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	*R*	R^2	R^2 Change	*F* Change
Model 1				
1 (Item)	.111	.012		21.657 ***
2 (Clinical Scales)	.158	.025	.013	2.239 *
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Item)	.158	.025	.005	8.953 **

* $p < .05$, ** $p < .01$, *** $p < .001$

The findings for the Jupiter category predicting the age at commitment are depicted in Table 45. The two separate regressions are illustrated, each consisting of two steps represented by Model 1 and Model 2. Significant results were found for the Jupiter group Model 1 ($\beta = .11$), $F(114) = 21.44$, $p < .001$, as well as for Model 2 ($\beta = .17$), $F(114) = 12.84$, $p < .001$. The clinical scales also produced significant findings, in both Model 1 ($\beta = .17$), $F(114) = 2.65$, $p < .01$ and Model 2 ($\beta = .14$), $F(114) = 3.51$, $p < .001$.

Table 45
(N = 114)

Summary of Hierarchical Regression Analysis for Variables Predicting Age

Model	R	R^2	R^2 Change	F Change
Model 1				
1 (Jupiter)	.111	.012		21.441 ***
2 (Clinical Scales)	.165	.027	.015	2.652 **
Model 2				
1 (Clinical Scales)	.141	.020		3.508 ***
2 (Jupiter)	.165	.027	.007	12.839 ***

* $p < .05$, ** $p < .01$, *** $p < .001$

CHAPTER IV

Discussion

Preliminary Analyses:

To investigate inter-rater reliability for the modified Megargee classification rules (basic group membership) and specific comparisons (multi-classified cases), 52 cases were randomly selected for comparison. These cases were manually classified by two separate researchers and then compared to the computer generated output. A 95% agreement rate yielded evidence of strong inter-rater reliability. This data demonstrates that the MMPI-A can be reliably assigned to the Megargee categories with a low rate of disagreement using the modified classification rules that were developed for the MMPI-A.

Results of the preliminary analyses revealed that the current study was able to classify 93.5% of the 1734 adolescents into the modified Megargee categories using MMPI-A profiles. This 93.5% is comparable to the 85% to 95% Megargee classification rate yielded by earlier research using original MMPI adult profiles (Megargee, 1977; Megargee & Dorhout, 1976; Megargee & Bohn, 1977), and to the 89% to 92% range resulting from research using MMPI-2 adult protocols (Megargee, 1994; Megargee & Rivera 1990). While these overall comparison rates appear to support the applicability of the Megargee classification system to MMPI-A profiles, the distribution rates of the individual offender types revealed some notable differences from adult findings (Megargee, 1977; Megargee & Dorhout, 1976; Megargee & Bohn, 1977).

The current distribution among offender types was contrasted with the group membership yielded by Megargee's original studies (Megargee, 1977; Megargee &

Dorhout, 1976; Megargee & Bohn, 1977). In the current study the Able group comprised 6.0% of the sample, notably lower when compared to 18% to 20% of Megargee's adult correctional sample using MMPI profiles. This discrepancy of 12 to 14 percentage points was the largest of all 10 offender types. According to Megaree and Bohn (1977), the Able group can be described as forceful, self-confident, and manipulative individuals who demonstrate little guilt for antisocial acts.

The Baker group comparisons were somewhat comparable, with 9.8% of the current sample in contrast to 3% to 6% of Megargee's adult sample. Prior research (Megargee & Bohn, 1977) describes type Baker persons as depressed, withdrawn, and likely to experience difficulties relating to authority and/or peers. For the Charlie category, comparisons between the current sample and prior adult profile research were more similar. Specifically, 9.2 % of the current sample was comparable to 8% to 10% of the original MMPI adult sample. Charlie members are often characterized as more aggressive, often striking out at others and displaying hostility (Megargee, 1977). The Delta group is described as amoral and impulsive, often using interpersonal charm to manipulate others. The comparison of distribution rates between the adolescent sample and prior MMPI findings were roughly the same, with 8.2% of the current sample similar to that of the 10% to 13% found in the original adult sample. Megargee found that 6% to 8% of his adult sample (Megargee & Bohn, 1977) could be categorized into the Easy group, while only a slightly lower percentage of 4% was found in the current MMPI sample. Research describes this group as well adjusted, intelligent, and underachieving (Megargee, 1977). The Foxtrot group on the other hand, was described as obnoxious, streetwise, and interpersonally abrasive. During current study, 5.1% of the sample was

classified as Foxtrot, in contrast to 6% to 8% found in the original MMPI adult sample (Megargee & Dorhout, 1976).

Similar distributions were found for the George group with the current MMPI-A study and the original MMPI sample (Megargee & Bohn, 1977), 8.2% and 6% to 9% respectively. Individuals who are categorized within the George group can be characterized as submissive highly adaptable people who experience few interpersonal problems (Megargee, 1977). Participants who are classified into the How group are considered to be extremely agitated and unstable and their crimes seem to be only one component of a broader pattern of general dysfunction. In the current sample, a slightly lower frequency of assignment into this group was found for the MMPI-A (5.2%), as compared to Megargee and Bohn's (1977) original MMPI adult sample (10% to 13%). When comparing the Item group distribution a notable discrepancy was apparent, 30.6% of the current MMPI-A sample compared to the original MMPI findings of 17% to 24% (Megargee & Dorhout, 1976; Megargee & Bohn, 1977). While there was notable difference in comparing the assignments into the Item groups, it should be noted that this group accounted for the largest percentage rates for both the current study and original MMPI data. Item members are described as appearing the most "normal" and well adjusted and their criminal behaviors appears unrelated to interpersonal and intrapersonal difficulties (Megargee, 1977). Individuals in the Jupiter group are described as impulsive, but often make a better than expected adjustment within correctional environments (1977). Comparable results were found in the current study 6.8% of the MMPI-A profiles were classified into this group, when contrasted against 2% to 5% of the original MMPI adult sample (Megargee and Bohn, 1977).

As with prior samples using MMPI profiles (Megargee & Dorhout, 1976; Megargee and Bohn, 1977), the current sample produced some MMPI-A profiles that could not be classified into any of the 10 offender types. Precisely 6.5% (N = 113) of the adolescent MMPI-A profiles could not be classified, as compared to 5% to15% of the original MMPI adult data (Megargee & Dorhout, 1976; Megargee & Bohn, 1977; Megargee, 1977). The current project also identified 112 protocols that could be multiply classified into two or more Megargee offender categories. After following a procedure for multi-classified protocols (Megargee, 1977), modified to accommodate MMPI-A profiles, all 112 cases were successfully assigned to 1 of the 10 Megargee offender groups.

While initially validating the classification system, Megargee and colleagues evaluated the 10 offender types against numerous subsequent extra-test variables related to population management and/or prison adjustment (Megargee, 1972; Megargee & Bohn, 1979; Carbonell, Megargee, & Moorhead, 1984). Some examples include: reports of disciplinary actions and the results of the subsequent disciplinary court hearings; record of the number of days spent in disciplinary segregation as a result of these infractions; and ratings of adjustment in the living units made at 90-day intervals by custodial personnel (Carbonell, Megargee, & Moorhead, 1984). After initial classification studies were complete, research focused on comparing these groups on various pre-sentencing reports, medical records, personality, and aptitude tests (Megargee and Bohn, 1977). In the current study however, predictive analyses focused on the Megargee classification system, using MMPI-A profiles, and available archival outcome variables. In the current study, these pre-admission variables included: seriousness of admitting crime; number of previous disposed offenses; most serious prior disposed

offense; number of previous commitments to SCDJJ; and age at admission to the Upstate Regional Evaluation Center.

Predictive Analyses:

The classification assignments into the Megargee offender groups were not significantly related to the categorical variables; of seriousness of admitting crime and most serious prior offense. This lack of assignment relationship could be attributed to a number of factors; first and most importantly would be that of the plea bargain procedure in pre-dispositional legal processes. After defense and prosecution attorneys complete negotiations, the final charges may not accurately reflect the original criminal behavior (Megargee, 1995). It is not uncommon for a defendant to enter a plea of guilty to a lesser charge, in return for the prosecutor agreeing to drop a more serious charge (Grisso & Schwartz, 2003). For example, a defendant may be charged with felonious Breaking and/or Entering, but enter a plea of guilty for misdemeanor Breaking and/or Entering as part of plea bargain. A charge may also be lowered within a legal class of criminal offenses. For instance 1st Degree Murder, categorized as a class A felony, can be reduced through the process of plea bargaining to Voluntary Man Slaughter, which commonly is classified as a B or C felony and punishable by a lesser sentence of incarceration. Such processes could contribute to difficulties in identifying the nature of admitting crimes and lead to inaccuracies in examining the severity and chronicity of past criminal behaviors (Gearing, 1979). Particular to the current study, there were also a relatively limited number of criminal charges found for the 1734 adolescents in the database. The limited number of variables could restrict the range and predictive power of the categorical

variables minimizing the statistical impact. However, these latter psychometric limitations will be further discussed later in this section.

Group membership was significantly related to the continuous outcome variables. Specifically, placement in the Jupiter group was significantly related to number of prior offenses and number of previous commitments to the SCDJJ. These adolescents placed in the Jupiter group had the least number of prior disposed offenses, as well as the least number of prior commitments when compared to the remaining 9 offender types. Group membership was also significantly related to age at admission, specifically placement in the Jupiter and Item groups. Group Jupiter had the youngest mean age of 14.39, while the Item offenders had the oldest mean age of 15.7.

Megargee and Bohn (1977) described individuals in the Jupiter group as impulsive, but they often make a better adjustment to correctional environments than initially expected. Further descriptions portray this male only group as having early encounters with the law and being younger than most other offenders at the time of first arrest (Megaree, 1977). Psychologists described these men has submissive, evasive, and cautious, often recommending further mental health evaluation with specific focus on the possibility of thought disorders (Megargee & Dorhout, 1976).

Even though these descriptions are based on adult correctional populations (Megargee, 1977), it appears these characteristics could be applicable to the current juvenile sample. The low frequency of prior offenses and commitments found for the Jupiter group can be directly related to the younger age at which the Jupiter adolescents were first admitted to the SCDJJ facility. It can be observed that due to earlier age at commitments, these juveniles have limited opportunities to commit illicit acts within the community and

receive subsequent commitments at disposition. The positive relationship between older age and greater number of juvenile criminal offenses is well documented in the literature (OJJDP, 1994; OJJDP, 2006). Moreover if the adult description of impulsivity can be downwardly extended to the current juvenile sample, such behavioral tendencies could contribute to these early justice contacts. Impulsivity in youthful samples is well documented as playing a critical role in early antisocial behaviors (Grisso & Schwartz, 2003; Krisberg & Wolf, 2005; Walters, Mann, Miller, Hemphill, & Chlumsky, 1988). The trait of impulsivity, combined with the general developmental immaturity commonly associated with younger ages, could contribute to opportunistic crimes resulting in a higher probability of apprehension. The generalizability of the adult literature for the Jupiter group (Megargee & Bohn, 1977) may be applied to other offender groups as well.

In the adult MMPI literature, group Item offenders are described as more stable and having more supportive families with less social deviance (Megargee, 1977). There adult criminal offenses are generally less severe, and their criminal behavior is usually not related to serious psychopathology. As a group, these adult offenders have fewer prior offenses and start offending at older ages (Megargee and Dorhout, 1976). While a relationship among placement in the Item Category, number of prior offenses, and offense severity was not found in the current sample, adolescents placed in the Item group were significantly older at the time of admission. The adolescents in the current Item group had an average age of 15.07, significantly older when compared to the other MMPI-A derived Megargee categories. Later onset of delinquent behaviors has been significantly related to such factors as familial support (Grisso & Schwartz, 2003), community protective factors (Krisberg, & Wolf, 2005), and positive school

programming (OJJDP, 2002). While it is unknown if the juveniles in the current Item group actually benefited from exposure to these resources, the significant relationship between age and Item adolescents could be a catalyst for further investigation.

A series of hierarchical Discriminant Function Analyses (DFA) were conducted to examine the extent to which classification into Megargee categories provided information that added incrementally to the information that is generally available by examining the presence or absence of T-score elevations on the basic MMPI-A clinical scales. The results of these analyses indicated that no significant relationship existed between either Megargee classification or MMPI-A scale elevations and the outcome variable type of admitting crime. A second series of analyses using hierarchical DFAs were used to predict the adolescents' most serious prior offense disposed offense, categorized into violent, serious/nonviolent, and non-serious. Once again, both the predictor variables of Megargee classification and MMPI-A elevations produced no significant relationship with this outcome variable, therefore prohibiting an evaluation of incremental validity.

In predicting continuous variables such as number of prior offenses, number of previous commitments to the SCDJJ, and age at admission, a series of stepwise multiple regressions were used. Once again, neither clinical scales nor Megargee classification were generally successful in predicting these outcome variables. An exception to this generalization were significant relationships found between placement in the Jupiter offender group and number of prior offenses and number of prior commitments to the SCDJJ. In both cases, classification in the Jupiter category was significantly related to these outcome variables and clinical scale elevations had no incremental value. Similarly, the results of the hierarchical regression analyses found that classification in the offender

group Item, when combined with Clinical scale elevations significantly predicted to number of prior disposed offenses and that clinical scale elevations were the most powerful predictor in this task. Finally, results of hierarchical regression analyses indicated number of elevations on clinical scales was significantly related to the adolescents' age at admission, and that only case of in that classification into the Charlie offender type did Megargee classification incrementally add to the amount of variance accounted for in predicting age at admission when combined with information concerning MMPI-A basic clinical scales.

Summary, Limitations, and Recommendations:

The current study attempted to extend the Megargee offender classification system designed for adults using the MMPI (Megargee & Bohn1977) and modified to accommodate the MMPI-2 (Megargee, 1994) to the MMPI-A.. The MMPI-A is the most widely used assessment instrument with adolescents in both forensic and clinical settings (e.g., Archer & Newsom, 2000). In order to employ the Megargee classification system with the MMPI-A, a series of adjustments were made to the classification rules that generally lowered the *T*-score requirements for elevations on selected basic scales, in keeping with the relatively lower scores typically found for adolescents on the basic scales in comparison with their adult counterparts (Archer, 2005). The results of these efforts showed that a classification system could be developed based on Megargee's model and categories that was applicable to the MMPI-A with a high rate of inter-rater reliability. Further, the results of the current study demonstrated that the modified Megargee classification system can be applied to MMPI-A profiles of juvenile offenders in a correctional facility in a manner that successfully classifies 93.5% of all offenders, a

classification rate similar to that reported by Megargee in his study of adult offender MMPI profiles (Megargee, 1977; Megargee & Dorhout, 1976; Megargee & Bohn, 1977). The current study does not, however, show extensive relationships between Megargee classification type and the limited number of outcome variables employed in this investigation period. It is likely that the current study was not an adequate test of the ability of the Megargee system to predict to relevant outcome variables due to a number of salient limitations.

Megargee and his colleagues developed their classification system in order to predict prison adjustment variables such as reports of disciplinary actions, number of days spent in disciplinary segregation as a result of these infractions, and other indices of overall population management, (Megargee, 1972; Megargee & Bohn, 1979; Carbonell, Megargee, & Moorhead, 1984). In the current study, an attempt was made to acquire correctional facility adjustment data, but this was not possible given the limitations of the archival data available to the researchers. Therefore, the outcome variables used in the current study were limited to pre-admission variables such as age, number of prior offenses, and severity of prior offenses. These variables are not the primary targets of prediction in Megargee's classification system, and it could be questioned whether these outcome variables represent an appropriate test of the usefulness of the Megargee system.

In addition to the outcome variables in the current study representing pre-admission indices rather than the incarceration adjustment variables which Megargee (1977) developed his classification system to evaluate, the specific pre-admission variables utilized in the current study were subject to significant limitations. For example, as previously noted, the severity of prior offenses and admitting offense constitutes outcome

variables were subject to significant manipulation in the plea bargaining process to the extent that it substantially limits the potential usefulness of these outcome markers. The remaining variables of age, number of prior offenses, and number of previous commitments to SCDJJ, were not targeted by Megargee (1977, 1994) as areas of potential usefulness for his classification system. In the current study these variables also had substantially restricted ranges to an extent that would reduce the estimate of the relationships that might exist between the Megargee classification system and these pre-admission variables. In summary, the outcome variables in the current study were clearly not optimal, but simply reflected the best variables available to the researchers available through the archival data set utilized for this investigation.

There are several promising directions for future research. One strong research need involves the development of longitudinal research studies in which the MMPI-A is administered at the time of admission, and carefully selected prison adjustment variables are followed across time such as number of infractions, number/type of disciplinary actions related to these infractions, and other general indices of adjustment/management. Further, longitudinal research spanning several years could also examine the rate of re-commitment among adolescents and how this variable might be related to the Megargee classification system. These types of longitudinal research are time consuming and expensive, and will likely require state or federal funding support in order to accomplish these research goals. It is unlikely that this type of carefully control longitudinal study would become available by simply accessing standard archival data sources from juvenile departments of justice.

Additional future research issues of significant importance involve the applicability of the Megargee classification system to adolescent females, as well as males. The current study was restricted to males only in a South Carolina juvenile evaluation center. Megargee (1997) has found evidence that his classification system may be successfully generalized to female adult offenders, although he has also documented significant differences in the correlates between men and women within his classification system. It is likely that similar gender difference might be found for adolescents in the application of the Megargee classification system to the MMPI-A, but such research has not yet been undertaken. Finally, relatively little is known about potential ethnic or racial differences in the application of the Megargee classification system to adults or in the application of this system to MMPI-A profiles. Since the rate of incarceration of African American adolescents is significantly higher than for Caucasian adolescents (OJJJDP, 2006), paralleling trends found among adult offenders, the issue of potential differences in frequency of assignment and differential applicability of correlates of the Megargee classification types by ethnicity should be a primary focus for future investigators.

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Appendix A

South Carolina Department of Juvenile Justice Record Review From

First Crime:

Seriousness of offense:	Violent	Serious	Non-Serious
Violent offenses:	Aggravated Assault Robbery Arson of occupied bldg.		Rape Kidnapping Murder
Serious offenses:	Felony Larceny Fraud Burglary Extortion Forgery/Counterfeiting Embezzlement Arson of unoccupied bldg.		Autotheft Dealing in stolen property Carjacking Drug Trafficking Weapons violations
Non-serious offenses:	All other offenses not listed above		

Specific Charge if not listed: _____

Type of Offense:

Malicious Injury to Person	Truancy and Contempt	Probation Violation
All Theft Charges	All Assault Charges	Disruptive Behavior
All Domestic Violence	Incorrigible/Runaway	Drug Charges
All Alcohol Offenses	All Sex Offenses	All Breaking and Entering
Arson	Gun Charges	All Weapons (not guns)
Receiving Stolen Goods	Resisting an officer	Traffic

Age at Offense: _____

Demographic/Dept Data:

Ethnicity: _____

Family Income : _____ (0, 5, 10, 15, 20, and 25) (where 0 = $0.00 to 4,999.99 and 5 = $5,000 to 9,999.99 etc.).

County juvenile is from: _____ (DISCT LOC)
Date offense occurred: _____(OFFENSE DATE)
Date Juvenile referred to JDD or court : _____(REF DATE)
Juvenile's placement in the DJJ system: _____
Offense Abbreviation: _____ Number of counts of this offense: _____
(OFFENSE)
Referral Sequence: _____ (first two digits # of referrals, third digit # of times through court on this offense (REF SEQ)
Solicitor's decision about what to dot with charge: _____ (SOL DEC)
Date of court hearing: _____ (DATE)
Type of hearing held: _____ AR-arbitration, AD-adjudicatory, DS-dispositional, RV-revocation (HEARING)
Action of the court: _____ PRO-probation, SCH- school attendance order, DJJ-commitment to DJJ (COURT ACTIONS)
Initial of the judge: _____ (JDG).

Criminal History:

Age at admittance: _____ Date of admittance: _____

Admitting crime(s): _____ _____
_____ _____
_____ _____
_____ _____

Length of Sentence: _____

To date time served: _____

# of incidents of institutional misconduct: _____
Types of misconducts _____ Date: _____ Maj/Mod
_____ Date: _____ Maj/Mod
_____ Date: _____ Maj/Mod
_____ Date: _____ Maj/Mod
_____ Date: _____ Maj/Mod
_____ Date: _____ Maj/Mod
_____ Date: _____ Maj/Mod

# of previous convictions _____
Type of convictions: _____ Senctence: _____
Type of convictions: _____ Senctence: _____
Type of convictions: _____ Senctence: _____
Type of convictions: _____ Senctence: _____

# of previous incarcerations _____Length of sentence: _____

Admitting Crime(s): _____
_____
_____
_____
_____

Intelligence Scores:
Full Scale IQ: _____
Verbal IQ: _____
Performance IQ: _____

Vita

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Joel A. Dillon received his Bachelor of Arts in Psychology from the University of North Carolina at Charlotte in 1999. He graduated with University and Psychology Honors, and completed a Senior Thesis entitled, "Juvenile psychopathy: A literature review." He later received his Masters of Arts in Clinical Psychology from Appalachian State University in 2002, where he completed his Thesis "Social competence and antisocial behavior: The moderating role of psychopathic traits." He entered into the Virginia Consortium Program in Clinical Psychology in 2003. He completed his APA accredited pre-doctoral internship at Northwest Georgia Consortium Internship Program in Rome, GA in 2007. While completing his internship, Mr. Dillon concentrated in forensic assessments, with particular focus on the evaluation of juvenile competency. Throughout his academic career, Mr. Dillon has presented research on developmental psychopathology and assessments with forensic populations at state, regional, and national conferences. He is currently employed with the North Carolina Department of Juvenile Justice and Delinquency Prevention as a Staff Psychologist where he manages admissions and orientation procedures for the department. He was licensed as a Psychological Associate with the North Carolina Board of Psychology in December of 2008. Upon completion of his doctoral degree, Mr. Dillon plans to fulfill his post-doctoral requirements with the North Carolina Department of Juvenile Justice.